DOCUMENT RESUME

ED 082 713 HE 004 758

AUTHOR Woolfolk, E. Oscar, Comp.; Jones, Sherman, Comp.
TITLE Curriculum Change in Black Colleges: A Report on the Cooperative Academic Planning Curriculum Development Workshop (Bishop College, Dallas, Texas, June 12-23, 1972).
INSTITUTION Institute for Services to Education, Washington, D.C.
SPONS AGENCY Bureau of Higher Education (DHEW/OE), Washington, D.C.
PUB DATE Aug 72
NOTE 111p.

EDRS PRICE MF-$0.65 HC-$6.58
DESCRIPTORS *Curriculum Development; *Educational Change; *Higher Education; *Negro Colleges; *Negro Education; Workshops

ABSTRACT

This report includes presentations of various speakers at the second of four conferences entitled "Curriculum Change in Black Colleges." Presentations in Part I concern the black college as a manpower resource delivery system; innovation in undergraduate education; general education and full educational equality; institutional research: a basis for curriculum change; and the implications of Minnesota Metropolitan State to black colleges. Presentations in Part II are in the form of seminars on educational systems and concern inquiry-centered teaching, accountability-based learning environment systems, the academic skills center, and the developmental perspective in higher education. Part III includes abstracts of documents prepared under supervision of consultants by 22 of 23 participating colleges. A related document is HE 004 759. This document was published through the Technical Assistance Consortium to Improve College Services (TACTICS). (MJM)

INSTITUTE FOR SERVICES
TO EDUCATION

Focus on

CURRICULUM CHANGE IN BLACK COLLEGES II

A Report on the Cooperative Academic Planning Curriculum Development Workshop

Prepared by

E. OSCAR WOOLFOLK
SHERMAN JONES

Bishop College
Dallas, Texas
June 12-23, 1972

INSTITUTE FOR SERVICES TO EDUCATION
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The Institute for Services to Education (ISE) was incorporated as a non-profit organization in 1965 and subsequently received a basic grant from the Carnegie Corporation of New York. The organization is founded on the principle that education today requires a fresh examination of what is worth teaching and how to teach it. ISE is a catalyst for change. Under grants from government agencies and private foundations, ISE undertakes a variety of educational tasks—working cooperatively with other educational institutions. It does not just produce educational materials or techniques that are innovative; it develops, in cooperation with teachers and administrators, procedures for effective installation of successful materials and techniques in the colleges.

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The Cooperative Academic Planning (CAP) Program, under the aegis of the Institute for Services to Education, is part of the Technical Assistance Consortium to Improve College Services (TACTICS) program which is funded under Title III of the Higher Education Act. This segment of the TACTICS program is charged with the responsibility to assist black colleges to improve their academic program planning.

This workshop was sponsored in cooperation with Bishop College.

"The Project presented or reported herein was performed pursuant to a grant from the Office of Education, U.S. Department of Health, Education, and Welfare. The opinions expressed herein, however, do not necessarily reflect the position or policy of the Office of Education, and no official endorsement by the Office of Education should be inferred."

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COOPERATIVE ACADEMIC PLANNING
INSTITUTE FOR SERVICES TO EDUCATION

2001 S Street, N.W. Washington, D.C. 20009

August, 1972

FOREWORD

It is clear that these are times of great pressures for the predominantly black colleges that were organized to secure black youth when no one else would. Now others are heavily involved, yet there would seem to be practical and a moral justification for the strengthening of these important educational institutions.

Saying it, however, does not make it so. A case must be presented for the role and mission of these institutions as a part of the total higher education resources of the Nation. These schools, through their faculties, students, and administrators, must say what those roles and missions will be. Roles and missions must be expressed in the kind, quality, and emphases in academic programs not just in catalogue preambles.

The Cooperative Academic Planning Program is moving to be helpful to institutions engaged in this analytical process. This volume, and its predecessor Vol. 1, represents an effort to bring a variety of resources to bear on these issues. Indigenous experts from the colleges as well as experts from the broader higher education community are enlisted. We have seen the ferment increase. Institutional change, however, is a tough business. Despite that, we can see these issues being approached forthrightly and with some urgency.

An examination of these proceedings indicates that there is no absence of self-criticism and self-analysis. Out of this may or may not come major institutional redirections or the rationalization and ordering of existing directions. For those institutions that take full advantage of what is offered, however, their case for a strengthened future should be considerably enhanced.

Elias Blake
President
Institute For Services To Education

PREFACE

Increasingly, black colleges—like others—are concerned with the type of education that their students are receiving. These colleges—again like others—wish to make their academic programs more responsive to the needs of an everchanging society and to prepare their graduates for places in society. Underlying much of their concern, of course, is the need for them to deal more effectively with the high attrition rates (approaching 80% at some colleges) at black colleges; enrollments at such colleges could easily be doubled if the root causes of their high attrition rates could be solved.

At the predominately black colleges, the need to design and implement a well-conceived educational program is extremely vital to a student's educational development because he probably arrives at the college underprepared for higher education. Achieving the kinds of curricular changes that are necessary will require new insights and a clearer understanding of curriculum development on the part of the leadership at these colleges.

Consequently, the central purpose of the CAP workshops has been to provide selected faculty and administrators at black colleges an opportunity for intensive study and discussion of ways and means for improving the quality of instruction, especially the core curriculum, at such colleges. It is the hope of the office that such workshops can assist the colleges to begin a comprehensive revision of their curricula and to examine general education and major degree requirements and courses with the aim of tailoring programs to students' interests, abilities, needs and opportunities. At the same time, the CAP staff is fully aware that since each institution is a unique entity, it must work out its own line of action by defining its own problems, setting its own priorities, and solving its own problems in the light of its own traditions and resources.

During the period 1971-73, the CAP office would have sponsored four workshops in curriculum change for the twenty-five (25) colleges in its consortium. An earlier publication, released in May 1972, **Curriculum Change in Black Colleges**, reported on the first such workshop which was held April 19-21, 1972. The report on the second workshop is the subject of this publication.

The major sections of this report include:

PART I - Papers given in the five plenary sessions in which ideas and thoughts on curriculum improvement and change were discussed.

PART II - Synopses of four educational systems which addressed themselves to the educational needs of students matriculating at black colleges.

PART III - Summaries of curriculum documents prepared by each team; the documents were addressed to specific academic problems at particular institutions.

The CAP staff and Bishop College wish to acknowledge the able support of the various speakers and consultants in the workshop for making it a valuable experience for the participants. Special thanks also goes to Dr. Joel Nwagbaraocha for his assistance in developing these proceedings.

E. Oscar Woolfolk
Sherman Jones

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PART I

PLENARY SESSIONS ON CURRICULUM

CHANGE AND IMPROVEMENT

THE BLACK COLLEGE AS A MANPOWER RESOURCES DELIVERY SYSTEM

George A. Owens

Manpower Needs and the Black College

In a speech before the New Jersey Association of College Administration Counselors, Assistant Secretary of Labor, Michael Moskow, in June, 1972 said, "Education should strive to direct the individual toward a career which suits his interests and abilities and for which there is likely to be a demand." The historically black colleges from their beginnings have tried to be a part of the "mainstream" educational enterprise. The educational objective of Tougaloo College was expressed in 1870 by the first head of the institution, the Reverend Ebenezzer Tucker, as follows:

> Educate not the Negro, but the child, not for his place but that he might find his place in doing his work among his fellows.

But the Negro was to be educated "for his place" for a long time. He was to be educated to provide the manual skills for white enterprises and to provide preachers and teachers, with a few medical doctors and dentists here and there, to serve the black community exclusively. The momentum of sentiment and advocacy for industrial education for Negroes was too strong by the time of Reconstruction to be derailed by any notions of general or liberal education for black people.

Industrial Education

August Meir found that militant abolitionism and the Negro Convention Movement (as early as the 1830's) not only promoted industrial education for Negroes; but the Negro conventions supported the proposals of white abolitionists to establish a Negro manual labor college. He points out, however, that the white abolitionists and blacks supported the idea for different reasons. The white abolitionists talked of the moral and pedagogical value of manual labor schools; Negro support of the idea was largely motivated by the racial and economic

realities of the day, i.e., the antagonism of white skilled labor towards their exclusion from apprenticeship trades, the growing competition of immigrants for the menial occupations and services traditionally performed by Negroes.

The American Missionary Association, an anti-slavery organization before the Civil War, whose name had been practically synonymous with the finest in liberal arts education of freedmen, inaugurated the most ambitious programs of industrial education between 1868 and 1871 at Hampton Institute in Virginia, Atlanta University in Georgia, and Tougaloo College in Mississippi. Samuel Chapman Armstrong, who created Hampton Institute, is reported to have been among the first to see the possibilities of using industrial education as a strategic ground of compromise between the white South, the white North, and the Negro. Clark University in Atlanta introduced industrial work in 1880, Atlanta Baptist College (later Morehouse College) instituted a trades program in the 1890's and Atlanta Baptist Female Seminary (later Spelman College) carried a program in domestic arts, printing, and nursing. Before Tuskegee was founded in 1881, a significant number of influential institutions had inaugurated programs of industrial and agricultural education. Among these were Alcorn College in Mississippi, Claflin College in South Carolina and Prairie View in Texas.

Conservative white Southerners considered industrial education as a device for preventing Negro advancement to the level of whites. Northern capitalists and philanthropists wanted a supply of cheap, trained labor available for the industrialization of the South. The Slater Fund, prominent in this period for its philanthrophy, appears to have had a significant influence through its single-minded support of industrial education for Negroes. When Attitucs G. Haygood retired as agent for the Fund in 1891, he could assert that industrial education had come to the point where every important Negro school recognized the utility and necessity of industrial training. Yet, Tougaloo College, with a history of Slater Fund support which outlasted many other black schools, started its college preparatory department in 1893-94 and produced its first college graduate in 1901. This development, typical of many other black schools of this period, suggests that some leaders on denominational boards, certain college administrators and indeed black leaders and students had a larger vision of the role of education.

But the dream "to educate the child that he might find his place in doing his work among his fellows" was to be denied for a long time yet.

Howard University introduced engineering on a collegiate level in its newly reorganized School of Manual Arts and Applied Sciences in 1915, but there was not a great demand on the part of white enterprises for the services of black engineers. The fact that a large proportion of college educated black males and black professionals worked as letter carriers, pullman porters, waiters and domestics well into the 1960's is very well known to most of us.

Teacher Education

The largest proportion of black educated persons and professionals were teachers. This fact of life dictated the content of the curricula of most of the historically black colleges well into the 1960's. These colleges were, for the most part, teacher training institutions despite their general claim that they were liberal arts colleges.

Because there were few other job options available, it has been estimated that 80-90 percent of the graduates of Tougaloo College from 1901 to the late 1960's entered the elementary and secondary school teaching profession. The career choices of black college students and the curricular decisions of the historically black colleges were made on a pragmatic basis, i.e., the job opportunities for black college graduates. Teaching was practically the only profession where a black college graduate had a reasonable chance of being employed.

The following observation of the findings of G. Franklin Edwards as quoted in "Between Two Worlds" by Frank Bowles and Frank A. DeCosta, illustrates quite well the problems that black college students have had in making career choices:

> ... a large number of respondents had given serious consideration to making a career of work other than the type which they are now engaged . . . it was also true that of all the alternate choices mentioned, only a few of them fell on levels other than the professional . . . There are several clusters of occupation which are prominently mentioned by our respondents as alternate choices . . . in fact primary choices . . . , but from which respondents felt Negroes could not earn a decent living. . . .

Edwards also pointed out that while students entering law, medicine and dentistry did so in terms of high motivation, a sizable proportion of the students entering teaching as a profession reported motivation so

low as to verge on disgruntlement. This underlines the primary motivation as directed toward entering a profession being decided in terms of real opportunity as evaluated by the student, even to accepting a choice genuinely undesired.

New Career Opportunities

There was clearly no general confidence that there was enough demand for blacks in all of the careers which suited their interests and abilities. The result of this condition created an employment distribution among black people which in 1964, according to data from the Population Survey of the U.S. Department of Labor, showed that 18.8% of the nonwhite labor force was employed in white collar occupations as compared with 47.2% for the white labor force. Bowles and DeCosta observing these data estimated that the Negro professional class was about half what it ought to be. Data from the 1964 U.S. Department of Labor Survey also projected that if the United States was to achieve its national goals of the 1970's, the employment distribution figures for whites and nonwhites employed in white collar occupations would need to be 51.1% and 25.8% respectively by 1975. In 1964, this meant a 37% increase in the percentage of nonwhite white collar employees. The lessening of discrimination in the 1960's together with positive legislation requiring specifically that blacks and nonwhites, in general, be hired in jobs from which they had been excluded caused Tougaloo College to begin to make changes in its curriculum and its attitude about its students. The college began to encourage its students to prepare themselves effectively to exploit these new career opportunities for black people.

Curriculum Change at Tougaloo

At Tougaloo College in 1965-66, we accepted it as a fact that there were significant new opportunities available to our graduates. Earlier our college had prepared its graduates for restricted career opportunities under industrial education and teacher education, but now the institution finally had the opportunity to "educate not the Negro, but the child, not for his place, but that he might find his place in doing his work among his fellows." We set out to make our curriculum relevant to new career opportunities. We confessed that, having no experience in these matters, we did not know what the

specific entry skill requirements were for the various new career opportunities. In other words, we needed some help with this task. Fortunately for Tougaloo, in 1964 we had initiated a cooperative working relationship with Brown University of Providence, Rhode Island. Brown University was a member of the "mainstream" of higher education in America and had almost two hundred years of experience of preparing students for the career opportunities to which our students now had less restricted access. The objective of this relationship was not to imitate Brown University, but rather to know what the "mainstream" of higher education was doing now and to be privy to the discussions of plans for change. We brought Brown University professors from several key departments to Tougaloo for full semesters of teaching and full participation in our faculty discussions about curriculum change. We established communication between our department heads and their counterparts at Brown. Communication between our administrators and their counterparts at Brown were similarly established. In addition to this, we established a student exchange program so that some of our students would get a perspective to enable them to make some constructive inputs into our discussions of curriculum change.

Our Career Counselling and Placement officer was a key source of information in our discussions of curriculum change. He established the contacts to find out in more specific terms what and where the new career opportunities were, what the specific entry skill requirements were, and to whom our students should apply. Our Career Counselling and Placement officer brought unusual qualifications to this job. He had been a teacher of chemistry for many years and had served as Academic Dean at Tougaloo for thirteen years before assuming the new responsibilities in 1965. He was a perfect choice for the job because his experience enabled him to understand the skill needs for entry into the new career opportunities and their implications for curriculum change at our institution. With the title of Vice President (he did other things as well), he was very effective in establishing contact with prospective employers of our students in government and industry and, together with the faculty, in establishing direct contact with many graduate and professional schools. Under his direction, corporation executive and personnel recruiters held meaningful and significant discussions about skill requirements with our Academic Dean and faculty. He has directed a very effective College-Industry Cluster group for the college and in addition has initiated a one to one relationship with a major

corporation. Some of our faculty have had the opportunity to work in industry during summer months and to participate in the Harvard-Yale-Columbia Intensive Summer Studies Program. All of these efforts have provided very useful input to our discussions about the changes needed to make our curriculum more relevant to the new career opportunities.

While all of these activities were going on, the college was engaged in an Institutional Self-Study for reaffirmation of our accreditation with the Southern Association of Colleges and Schools. This study also produced recommendations for change in the curriculum. Student opinion was encouraged and solicited throughout this period of deliberation. Convocations were convened from time to time and proposals for change moved through the normal committees.

The New Curriculum at Tougaloo

The guiding philosophy of the new curriculum developed from these deliberations was that the student shall cease to be a passive partaker of knowledge and shall assume a principal role as learner. This philosophy is succinctly stated in a portion of the new aims of the College in the catalog containing the new curriculum which was initiated in the fall of 1968:

> Tougaloo College seeks to be an educational community where free men and women will educate themselves aided by a faculty devoted to the goals of transmitting, extending and using knowledge. Tougaloo intends that its students shall become self-directed learners and self-reliant persons capable of dealing effectively with challenges and issues both now and in the future.

Three major changes in the curriculum stand out. There are 1) the change to the course system, 2) the significant reduction in the number of courses needed to meet the General Education requirements and 3) an institutional change in attitude about the students we serve. Under the new curriculum official credit for academic work is measured by semester courses and each student takes four courses each semester. Under the old curriculum each student took five or six subjects each semester and had a legitimate complaint that he did not have time to concentrate on any one subject because he was constantly writing papers or studying for examinations in the other courses. The student's

attention was spread too thinly and he gained only a superficial knowledge about too many areas. The new four-course program enables the student to study a course in greater depth. The requirement for graduation under the new curriculum is that a student must successfully complete thirty semester courses with a grade point average of C as compared with the requirement of 120 semester hours under the old curriculum.

The old curriculum placed a General Education requirement of approximately 67% on the student, while the new General Education requirement is approximately 37% of the student's program. The 67% requirement which placed the student in an intellectual straitjacket by specifying approximately two-thirds of his program the moment he enrolled was a form of in loco parentis which has no place in a modern day educational institution. The requirement for an academic major is approximately 23% of the student's program under the new curriculum as compared to 20% under the old curriculum. Thus, the requirements under the new curriculum for General Education and the major field total approximately 60% under the new curriculum as compared to approximately 87% under the old curriculum. It is obvious that this change allows the student to select more of the courses he will take. It gives him the freedom to select more courses in his major field of concentration, to take courses in a minor field which interests him, or simply to take individual courses that appeals to him.

With the help of a strong advisory system of faculty, the student is encouraged to think about his career interest and to select related courses both in his major field and outside the academic division in which he majors. He is further encouraged to do this by the option of taking two courses on a Pass-Fail basis. Courses taken on a Pass-Fail basis will not be included as part of the grade point average, but the student will receive credit for a course with a Pass grade. Two of the courses in the freshman year are required—namely the Freshman Social Sciences Seminar and Freshman Composition, leaving the freshmen free to select two courses. Freshmen planning to major in the natural sciences are encouraged to use one of their selections for mathematics. Some freshmen might begin work in their major field while others might begin their foreign language requirement. The choice is up to the student.

The history of education for black people, given before, points up the fact that we have largely been engaged in an educational enterprise of teaching knowledge for knowledge's sake; in other words, there was

little likelihood that our graduates would ever be able to find places in the society where they could put all of the knowledge to use. And further, traditionally the educational enterprise has said, in effect, to our students that the experiences and cultural pattern that they brought to our colleges had no significance in their formal learning endeavors. The current wave of black awareness has put the lie to this assertion. Black students know that their learning experiences and cultural pattern are significant factors in their formal learning endeavors.

That such prior learning experiences and cultural patterns are significant for all peoples is noted by Jerome S. Bruner, educational psychologist at Harvard, in the following statement, "A theory of instruction concerns itself, rather, with the issue of how best to utilize a given cultural pattern in achieving particular instructional ends." And further that, "If information is to be used effectively, it must be translated into the learner's way of attempting to solve a problem." A change in our attitude about students is indeed overdue. Ralph Ellison has said the students we serve say this to us:

> If you can show me how I can cling to that which is real to me while showing me the way into the broader society, I will not only drop my hostility, but I will sing your praise and help you to make the desert bear fruit.

would do well to listen.

And what results have we achieved? In recent years an average of almost 40% of our graduating seniors have entered graduate and professional schools with an attrition rate well below what is the normal graduate and professional school attrition rate. The 1971 class had a graduate and professional school entry record of 47%. During the 1971-72 academic year, thirty graduates of Tougaloo were studying for medical degrees. Our placement of students in government and industry has averaged approximately 25% in recent years despite the slump in the national economy. We have reason to be hopeful because the changes in our curriculum appear to have been justified.

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INNOVATION IN UNDERGRADUATE EDUCATION

Paul L. Dressel

In a monograph entitled UNDERGRADUATE CURRICULUM TRENDS, published by the American Council on Education in 1969, my colleague, Dr. Frances DeLisle, and I reviewed ten years of curricular innovation and attempted to point to some trends. We concluded with a chapter entitled "Innovation, Renovation, and Tinkering." In this chapter, we pointed out that a great deal of what is regarded as innovation in any institution has been tried by other institutions in times past and discarded for something else. We also pointed out that much of what goes under innovation is more appropriately titled a renovation of existing features of a program. Reports of such innovation may have more punch verbally than in actual practices on the campus. And hence we suggested that much of what is called innovation or renovation is actually nothing more than tinkering—tinkering with the number of credits and the number of courses that the student carries per term; tinkering with requirements (such matters as whether a student really is required to take 12 or 15 hours of science); tinkering with the calendar (the introduction of interim periods designed either to ease the letdown after the Christmas holidays or to permit a period in which learning can be structured in a different fashion); tinkering with independent study or honors; with a junior year abroad, with off-campus work experience, and the like.

Tinkering is not an unfair characterization for much of what goes on. For example, I have observed over a period of years that many institutions that highlight their indpendent study program actually can produce but a handful of students who have had independent study experience. Similar comments can be made about off-campus work experiences, travel and study abroad, and the like. Much of what we hear comes from administrators or public realtions-oriented people out to attract attention to themselves and their institution. In practice, faculties have a very effective way of defeating innovations which they do not endorse. Quite commonly, for example, professors in mathematics or in science have simply used an interim period for a concentrated dose for their majors. Tinkering is most evident and most common in the many hours that are spent by committees arguing about requirements, juggling the number of hours required in one discipline or

another, arguing about whether history should be in the humanities or the social sciences, hotly debating whether a foreign language requirement should be continued (and whether it should be one or two years), weighing whether the classical conception of a sound mind in a sound body really justifies a physical education requirement, and the like.

None of this really has very much to do with the quality of the education provided for students. Much of it only reflects the deeply embedded self-interests of faculty, which constitute a conflict of interest so serious that it is questionable whether the faculty of any institution is capable of determining the treatment appropriate for their students. It savors much of the doctor who would doctor himself, a strictly unethical practice, because where emotions and self interests are involved, judgment cannot be trusted.

Most of our education has been oriented to the past, although for ourselves—and especially for our students—the future is the only thing that really counts. The past is gone and useful to study only for recreation or because of the implications which may be drawn from study of the past to understand the future. The present is a fleeting moment, gone before the word can be uttered. The future is all that counts, and education which does not prepare one to face and deal with the future is a fraud. Yet, despite numerous attempts to subjectively predict education in the year 2000, or the use of the Delphi technique (a modern revival of the old Greek oracle), the future is always uncertain. Indeed, it is only the fact that it is uncertain that makes living worthwhile; but the fact that it is uncertain means that education must be aimed at producing individuals capable of adaptation to a changing society. Scholars have always known this, but scholars get so involved in the past that they think an education is evidenced by knowledge or specific names, places, dates, concepts and characterizations.

The fleeting and tentative nature of scholarly generalizations are not apparent to students, and the powers of analysis, synthesis and evaluation, which are essential to select, test, and utilize the relevance of knowledge and skills in the solution of our current and future problems, are not developed in students. Professors (with some exceptions) delight in demonstrating their wisdom and skill in organizing facts and generalizing from them, but they seldom provide the opportunity or the time for students to develop this ability. Thus we perpetuate an education which emphasizes memorization of factual knowledge, much of which turns out shortly to be incorrect, and we

fail to develop the abilities, the insights, and the values which are necessary if the individual is to find a satisfactory life for himself and make a significant contribution to society.

Because of the past orientation of faculty, because their own self-interests lead them to focus primarily on the discipline and their own activities rather than the students, and because most faculties and colleges are out of touch with the society which they service, I expect significant changes in education can come about only from external pressures. I would welcome fund limitations which would be handled in such a way as to force faculty to eliminate many needless courses with small groups of students and with materials irrelevant to the current scene. I think that the public suspicions of what goes on in our colleges and universities are well founded. As in all walks of life, there are some faculty members who do very little. This, I am sure, is a minority. Most faculty members work many more hours a week than do persons in other vocations, but the problem is that they emphasize what they prefer to do rather than that for which they are paid. Hence, external pressure for responsibility and responsiveness on the part of institutions of higher education is well based.

The development of external degree programs and nontraditional education may force the academic to take stock of the significance of the on-campus experience, the time wastages involved, and the irrelevancy of much that goes on. However, I doubt that good off-campus education can be conducted without significant expenditure, and I doubt that large numbers of people will continue their education without considerable interaction and motivation with some mentor. I do believe there are many ways in which people can learn and that much of what is going on in our colleges is unnecessary or even irrelevant to significant learning. If we can define the outcomes of education in tangible ways, then we should be able to recognize educational achievement, however acquired. Having done so, we might be forced to reorganize our colleges to focus on competencies rather than on bits and pieces of knowledge, most of which have no significance to anyone other than the academic pedant. With this pessimistic point of view of what now goes on in our colleges, and with a pragmatic point of view about what should go on, I would like to move to discussion of a number of concepts which I believe should be highlighted in curricular planning.

Four Continuums

First, I should like to suggest four continuums which ought to be consciously consulted as we think about the development of the curriculum and of the educational experiences of our students. These continuums also have direct relevance for the kind of behavior in which students engage and the kind of behavior which is developed by education.

The first continuum is that which focuses on the individual on one hand and the disciplines on the other. I submit that most of our college programs heavily emphasize the disciplines. They emphasize the disciplines by forcing the student into a choice of a single discipline as a major. They emphasize the disciplines by organizing the colleges around departments and by hiring Ph.D.'s trained in traditional disciplines. They emphasize the disciplines by a series of courses in which the emphasis is placed on essential facts in the disciplines and perhaps on developing some powers of analysis or thought typical of a discipline. But they generally conduct instruction so that it becomes evident to the student that the natural result of concentrating in a particular discipline at the undergraduate level is to pursue graduate study in that discipline.

On the other end of this continuum, one would focus more on the individual. What does the discipline mean to an individual? In terms of what an individual may do, is educational experience best organized around the disciplines? Is it possible that the experience with this discipline means very different things for various students in a given course? What power results to the individual from exposure to one or more courses in a discipline? The disciplines have some significance as ways in which man has organized knowledge accumulated in the past, but we need to recognize that the significance of the discipline may be different for each person. Unless an individual has achieved some basic insights, patterns of thought, and a sense of relevance of the discipline to his future activity, we have wasted his time and ours.

The second continuum is one which has a practical orientation on one hand and a theoretical one on the other. Again, too much of college is organized on the basis of theory and theoretical constructs. In developing theory, the disciplinary mind tends to fragment man and his culture, focusing on isolated aspects which are almost irrelevant or unidentifiable to the real world. In contrast, we need to balance education by, from time to time, looking at the practical implications

of knowledge, by looking at problems which man faces and asking what various disciplines contribute to insights into these problems. We may recognize that at times a theory is a very practical tool and that blind practice without broad concepts and theories is not characteristic of an educated person, but concentration on theory can at best do little more than turn out more people in the mold of the professors who now dominate too many of our institutions.

The third continuum is that of flexibility on one hand and rigidity on the other. It is my view that most of our colleges and universities are monuments to rigidity. Our catalogs have page after page of regulations —regulations with regard to grades; regulations, rules or requirements with regard to courses; and, in the past though less so now, rules and regulations with regard to residence halls, acceptable behavior, and the like. In the last few years we have moved into many rules and regulations with regard to tenure and with regard to appeal procedures. In all of this development, we find a peculiar phenomenon. In attempting to recognize an individual, we so rigidify our rules, regulations, and procedures that in attempting to eliminate unequal treatment for individuals, we end up with unequal treatment for almost everyone. Equity becomes a new type of uniformity and we cannot provide differential recognition of differing interests, abilities, aspirations, and performance.

The other end of the continuum emphasizes flexibility; it would permit both students and faculty members extensive variation in teaching and learning and in the experiences considered relevant to learning. Rigidity would be maintained in the sense of the outcomes expected, but major flexibility would be provided in the means by which those outcomes might be attained. I have at times characterized this as flexible rigidity—a rigidity in which we are clear as to standards, but we are flexible both in the means of attaining those standards and in the types of material and situations in which individuals are permitted to exhibit those standards.

The fourth continuum is that of compartmentalization on one hand and unity and coherence on the other. The structure of our colleges and universities emphasizes compartmentalization. We have departments, schools, and colleges; we have deans of students; we have business offices; we have counselors and advisers; and a multiplicity of functionaries who deal with parts of the students in the institution. For years our residence halls on many campuses have been handicapped by the fact that representatives of the business office and representatives

of the student personnel office (even with the best of good will) find some contradictions between programs which are regarded as good for the student and restrictions which are regarded as necessary to pay off the indebtedness. The injection in recent years into these halls of academic faculty by establishing residential colleges have engendered another conflict. To the student for whom we have set up the ideal of an examined life, it must be all too apparent that those who supposedly are educated and who conduct our educational institutions are as petty, as emotional, as irrational, and as much engrossed in their own careers, aspirations, and self-interests (if not more so) than the average citizen.

In contrast, we should be seeking for the other end of the continuum which emphasizes unity and coherence. What we teach in psychology and sociology, in logic, in education, and elsewhere on our campuses should be productive of guiding principles applied to and evidenced in the conduct of our college and university programs. No one can provide for anyone else an integrated education, but we certainly can provide a pattern of education which indicates our conviction that the cognitive, the affective, and the psychomotor outcomes of education transcend but can be reinforced by all experiences on a campus.

Additional Relevant Concepts or Principles

These four continuums set extremes and dramatize the fact that most of our colleges and universities emphasize the disciplines and theory, are rigid, and are heavily compartmentalized in structure. They emphasize that we need to focus on the individual and provide a more practical orientation, a flexible approach, and some sense of unity and coherence. There is also a need to balance liberal and vocational education. I am very, very tired of pseudo-humanists, classicists, and historians who talk about the liberal arts and who seem to think that a liberal education is somehow a result of a tour of the liberal arts. I do not know what the liberal arts are in the present day, and neither does anyone else. I think I do know what constitutes a liberal education, but I believe that liberal education must be defined in terms of how an individual thinks and behaves and not in terms of what he knows. Certainly, if we were to find people on Mars or some other world in space, we would not expect them to know the names nor the views of Aristotle, Plato, Cicero, and others. We would not expect them to know about the Renaissance, the Enlightment, or other such catch phrases as

commonly are the bases for either objective or essay test questions in many of our courses in English, history, philosophy, and other courses on the campus.

I believe a liberal education is exhibited by the way in which a person behaves. It is a combination of the ways in which he communicates with others and his ability to define and carry out an independent venture in study of a problem. It involves his sensitivity to his own value commitments and awareness and respect for the differing values of others. It involves his ability to work with others, to understand their ideas, to be sensitive to their concerns, and to promote agreement and carry out actions consistent with agreed upon policies. It involves an awareness, a concern, a sense of involvement in the current scene, and a continuing search for coherence in life for increased equity and efficiency in the operation of our society. Viewed in this manner, there is no conflict between liberal and vocational education. The person who has an education which he cannot use on the job as well as in his home and in his recreational pursuits does not have a liberal education. A person who has learned vocational skills but has not developed a sensitivity to others and a judgment as to how to modify and apply these skills in new situations not only is not liberally educated, but he is not adequately vocationally educated. The only education that is meaningful for an individual or for society is one which effectively welds liberal and vocational. To do this requires that education have not only continuity, but that it have a continuing build up, a sequential development, and that the learnings involving knowledge, cognitive skills and affective sensitivities are effectively integrated in the individual so that he can bring to bear his full powers on matters of concern to him.

The learnings and abilities need also to be integrated with the reality of the world in which this individual will operate as he leaves the educational institution. Our vainglorious arguments about breadth and depth need to be junked, recognizing that emphasis on breadth alone breeds superficiality and emphasis on depth alone breeds isolation, irrelevance, and arrogance. The term "depth" is one of the most inappropriate that has ever been used to describe an aspect of education. Height would have been a far better term, implying that after moving across a broad terrain of knowledge one ascends to a higher level in some particular area, while continuing to be aware of, cognizant of, and concerned about the terrain which is better seen from a higher point which provides both perspective and a sense of

relationship. Depth, unfortunately, connotes and often has been interpreted as digging a hole. As one gets deeper and deeper into that hole, he loses sight of everything around him. I assert that we need breadth in depth, else depth is dangerous, and that equally we need depth in breadth, else breadth is superficial. I would contend that our traditional concept of breadth which requires a few credits in diverse and unrelated fields of study is a waste of time. If, on the other hand, we turn to the probable areas of future activities of individuals and ask what fields and what abilities might be relevant to performance in these fields, we will almost invariably find that several disciplines must be combined for effective performance.

I recall a young woman, daughter of a staff member of the National Geographic Magazine, some years ago, who wished to pursue at Michigan State University a program in biological sciences, in journalism, and in the arts and photography. One could scarcely question the breadth of this program nor the depth; one could not doubt that this young woman had vocational concerns and yet was concerned with getting a liberal education; one could not doubt that these various fields were interrelated and that they would have a sequential and integrated development. Unfortunately, the program at Michigan State split these areas into three different colleges and, in addition, required forty-five credits of general education covering humanities, social sciences, American thought and language, and the sciences. And so the rigid program of a university committed to improvement of undergraduate education made it necessary to say to the young woman, "You have a wonderful idea for an undergraduate program, but you can't get it here." I've often wondered, but I do not know, whether she ever found any college or university that would permit this approach.

I think we need to recognize that our concerns about courses, credits, specific requirements, departmental majors, interim terms, junior year abroad, freshman seminars, and other gimmicks have little relevance to getting an education, except as they provide experiences which are conducive to the development of abilities or competencies which are the earmark of an educated individual. In most of our colleges and universities presently, we could throw out half of our courses (and probably half of our faculty) and do a better job than we are now doing.

I have already suggested the competencies that I believe should be looked for as the end results of education and that should be required

in reasonable measure of every student who is granted a degree. First, I identify communication skills because these are essential in understanding the ideas of others, in expressing one's own ideas, and in the exchange which is necessary to resolve differences and develop accord in programs of action in a democratic society. Furthermore, I believe that until a person has attempted to express in his own words ideas which he has tentatively developed, he will not thoroughly understand himself what he has in mind. He will also gain in clarification by sensing the reactions of others to his efforts. Secondly, I believe that every person receiving a baccalaureate should have demonstrated a capability to carry on some individual study of his own. This involves defining a problem, laying out a program of study, carrying through the program, and presenting some kind of tangible result demonstrating the success of his efforts. Thirdly, I believe that every person should know what he stands for, what his attitudes and values are. He should be aware of differences between his own attitudes and values and those of others; he should have a sensitivity to the attitudes and values of other people and other races and have respect for them even when he disagrees with them. Fourth, the person should have learned how to collaborate and cooperate with others in the clarification of ideas and programs. Whether in science or in a democratic society, most of our efforts must be collaborative ones, and it is essential that this ability—a group form of independent study—be one of the results of an educational experience. Fifth, I believe that the student should become aware of and concerned with what is happening from day to day in the world. Unless his learning and world events are interrelated in college, they are likely to remain unrelated thereafter. Every discipline results from human insight and experience and, therefore, every discipline can throw some light upon and be illuminated by current events which both flow out of history and from it. Sixth, every student should develop and use the ability to relate his knowledge, actions, and values in meaningful ways. The relationships meaningful to him may not always be those of his professors, but the habit of integrating his knowledge, experiences, values, and actions makes life more challenging and furnishes a sense of unity badly needed in a disintegrating world. This final competency depends upon and unifies the preceding competencies. The latter are seen as cumulative, developmental abilities which permit and strengthen the individual's ability to sense some unity and fulfill his own potential.

The typical combination of major and distribution requirements suits the convenience and training of the faculty. It represents an idealized organization of knowledge and has little to do with reality. Indeed, this organization by disciplines is irrelevant to practicality and that, no doubt, is the origin of the phrase "academic problem." Interdisciplinary approaches have usually foundered on the disciplines. The problem is suggested by the plethora of terms—interdisciplinary, transdisciplinary, supradisciplinary—which have at various times been used. Many of the general education ventures of a few years ago were interdisciplinary, but they almost invariably became a conjoining of segments of traditional disciplines rather than a unified experience based on a selected set of concepts, constructs, and a methodology common to several disciplines. Intradisciplinary courses will be no more related to reality than single discipline courses, unless they start with and continually return to a real problem on social concern.

In short, a theme, problem, or policy approach is likely to be more successful than an interdisciplinary approach. For example, ecology qualifies as a theme because the broad implications of ecology cut across many disciplines and require ideas, concepts, and principles from many disciplines to understand and resolve ecological problems. Urban studies qualifies as a theme or problem approach. Social sciences, sciences, and the humanities (although in a very different sense than they are usually taught in our colleges and universities) are essential in understanding urban problems and in any solution of them. However, I must add that as education moves to an examination in some depth of basic social issues, it may be expected that we will produce a breed of graduates who will express increasing dissatisfaction with the way our society and its leadership fail to comprehend or to take constructive action in resolution of problems. So long as we have leaders who are willing to throw away billions of dollars in Southeast Asia while largely ignoring human misery and social inequity at home, we shall continue to have our difficulties.

I doubt that any college can successfully organize its total program around a particular problem, theme, or even a series of problems, or themes. Some disciplines, like physics, chemistry, mathematics, which are highly sequential in organization and which tend to be all-consuming in interests, neither attract nor produce people who are likely to see their disciplines as subsidiary to some other problem.

Hence, I expect that any undergraduate program built around one or more themes, problems, or a policy approach needs to have a combination structure which, on one hand, provides for some of the traditional disciplines and which, on the other, provides a corps of faculty particularly interested in young people, particularly interested in problems of society, and generally sufficiently alert to the changing scene to help the undergraduate use the disciplinary resources within the institution, independent study, travel, and other experiences to develop a coherent educational experience related to the real world and his presumed role in it.

Such an approach becomes a program of individualized education, such as has been planned by some highly experimental colleges. However, I do not believe in an individualized education which junks all of the disciplines, which ignores problems of sequence, which waives requirements, and which allows each individual either to stew in his own juices or in the broth of a communal stew. Basically, I see the individualized approach as having a cognitive emphasis. The student needs to get an idea of organized knowledge and of the structure and methodology of several disciplines. He can use the traditional disciplinary organization up to a point of acquiring a set of abilities, but he needs also to acquire some independent study competency which builds in him the capacity to move back and forth between a real problem of concern to him and the resources provided by the various disciplines. In the process, he should be aware of the problems faced by a society in which mores, folkways, bias, prejudice, selfishness, and suspicion are rampant. I have no confidence and even deep seated animosity to those attempts at education which have emphasized the affective concerns to the detriment of the cognitive. Encounter groups, T-groups, and that milieu of activity may, for many individuals, be a significant social experience and even a therapeutic one. It may even be an educational one in the original sense of education as a drawing out process. What I have seen, read, and heard about encounter groups generally confirm my convictions that these are at least marginal, if not entirely irrelevant to, higher education. Educational institutions should be concerned with development of the individual's mentality, but they should not be confused with mental institutions. The evidence of improvement required for discharge is somewhat different in nature.

The individualized approach has special significance today when new approaches to education—external degrees, nontraditional approaches—are being developed. I am sympathetic to these develop-

ments because, basically, I believe that each individual ultimately educates himself. In my own experience, I found that many of the professors I had were impeding my development rather than assisting it. And the ones I remember best were ones who, in effect, said to me, "You're a nuisance in the classroom, get out of it, and do this or that or something else that you think worthwhile." Almost any experience can be an educational one, depending upon how the person goes about it and what he wishes to get out of it. Our typical classes in college represent to me one of the poorest ways to get an education. My own feeling, then, is that a reiteration and reemphasis on competency development is the only way to improve education. These competency outcomes by no means ignore attitudes, values, and the affective realm, but place them in the context which I believe is vital in higher education. The affective must be interrelated with the cognitive and the psychomotor development. Consider, for example, the surgeon who is conducting an operation. He certainly must have a background of knowledge; he must have a sensitivity to and a concern about the human being upon whom he operates, and all this must be interrelated with and govern the motor skills which are involved in making the operation. Thus in some sense, the surgeon at the vital moment in performance of his professional role exemplifies the culminating character of education in which knowledge, values, and skills must be interrelated. Disciplines, as such, are not unimportant in this context, but they are subsidiary. Their primary advantage is that organized bodies of knowledge and ideas are more easily assimilated than unrelated ones. But a useful organization of knowledge need not dictate college organization. There are other factors which need to be consulted in administrative organization and operation.

Organizational Considerations

The typical disciplinary-based department is a hazard to the development of undergraduate education and even, to some extent, to graduate education. To those who have decided to enter graduate study in a particular discipline, the discipline in itself seems terribly important; but the organization of disciplines is an artifact of particular scholars and the historical development of particular patterns of thought. Disciplines are also, in part, the results of the inadequacy of our knowledge at the various stages of development of different disciplines. Biology was originally largely descriptive, but ultimately

biology, in its earlier sense, will be replaced—as it has already partially—by applications of chemistry, physics, and mechanics. Our colleges and universities have an organization based on past and generally inadequate organizations of knowledge, and we suffer from the incapability of eliminating anything, though we continually add things. Departments, like organisms, multiply but, unlike organisms, the progenitors continue to exist eternally. Institutes and centers have developed apace in many institutions, often with infusion of outside dollars, but these, too, once they get a foothold in the institution, seem to divert funds from other sources and develop a continuing life. In general, it seems to me that the vocationally-oriented units—denoted as schools in some universities—maintain more contact with reality, perhaps because they are under greater pressure from external sources. One can criticize medicine, law, engineering, business, journalism, nursing, and other fields for their inability to keep up with changes in society, but when one contrasts the changes which have taken place in these professional fields with the continuing rigidity of the patterns in our basic arts and sciences, professional fields appear highly flexible. Many of our new developments themselves quickly become inflexible. Institutes and centers, as I have already noted, once outside funds disappear, frequently are continued with funds from the regular budget. But all too frequently they have developed a limited purview of their research, service, or instructional activities, have effectively absconded from the task which brought them into being, and are as sterile as many of the departments. Inner colleges developed in recent years in many institutions have generally been greeted by faculty members and students in their first years as stimulating innovations, but all too quickly these, too, have frozen into a pattern which they self-righteously pursue and deny the validity of external concern and criticism. And in many cases, it is difficult to get new students into these units simply because these experiemental units (at least so designated) have in themselves become rigid delivery systems for a different but really no more relevant undergraduate educational program.

I have no ready solution for renovation of undergraduate education, least of all by any organizational approach. In every college or university that I have visited I have found a minority of faculty members who were alert to the interests of students, who were aware that education was useful only if it was relevant and recognized that the existing structures were developed for the benefit of the faculty rather

than for the students or for society. My conviction at the moment is that one of the best steps we can take is to separate from the departments and from the colleges the authority for planning individual programs for students. I propose to vest program planning for students in a corps of faculty people or counselors who would be empowered to work out with each individual a program based upon a number of sound principles but basically developed on the basis of individual interests and the assurance that the program will provide experiences productive of the competencies earlier mentioned. This approach would take from the academic faculty the right to force students into their own mold. It would ultimately force them to develop courses and programs which would meet the needs of students; otherwise, they would attract no clientele. It would produce a pattern in which each student would be, in considerable part, responsible for his own education, although he would have to meet some definite standards before he could acquire a degree. It would produce a pattern whereby the education of an indivdual could be appraised apart from class attendance and grubby credit accumulation. I believe it would also produce an educational program which would be, on one hand, less expensive and, on the other, more valuable both to the individual and to society. This would be a real renovation in higher education.

GENERAL EDUCATION AND FULL EDUCATIONAL OPPORTUNITY

Albert H. Berrian

One way of getting into the business of education is through a review of some of man's behavioral characteristics. Almost from birth, man tends to explore himself and his surrounding environment. He exercises the objects external to him (or attempts to) and then grasps at them in an effort of incorporation. This is done early in his career and the hands and mouth become principal organs. Later in his career, man turns to language—which may be haptic, verbal or written—and utilizes language as an analytic tool to be brought to bear on his explorations.

If we can see our way clear to accepting the above, a definition of general education would have to be all-embracing. For purposes of our discussion, to be limited first to the foundations on which a general education must be built if such an education is to lead to full educational opportunity, the important thing to stress is that a general education that is meaningful for students with physical and mental handicaps that short-circuit his explorations, must be subjected to general education components that have remedial and supportive elements cranked into them. These elements are difficult to come by in a stratified and competitive society. This is another subject and would only get us off on the subject of standards, which would be quite irrelevant and apart from the truth of the matter.

The truth of the matter is that 95 percent of all black students are deficient in one or more of the basic skills required for the taking of college-level courses, and fewer still have acquired the specific skills and thought processes through which sophisticated course content may be internalized and made a part of one's intellectual equipment. The problem is not one of inherent inferiority on the part of the student but, ironically, one of the brain's effectiveness as an information processor and sensor-motor decision-maker. What comes forth as academic impairment is the by-product of the brain's functioning (normally, I might add) in relationship to the psycho-social and physical environments in which it has existence.

We are fully aware, as committed educators, of what must be done. This comes through, even as one peruses the popular literature, as for example, a recent article in "American Way." Note the following quotation from David Gow's "Dear Mon and Dad."

> In the classroom a pragmatic approach is used, stressing oral instruction and enormous amounts of practice, drill and repetition. Infinite patience, a thorough grasp of the problem and special techniques that have evolved from years of teaching this type of student combine to produce instruction that is custom tailored. . . Classes are small, and a teacher can almost immediately spot a pupil whose attention seems to be wandering. . . Educators report the most gratifying part of work with—students is that their alumni do not report any significant or lasting impediment once they've moved into careers after school and college. (June 1972, pp. 34-36)

Is David Gow talking about the so-called educationally and culturally disadvantaged youngster? Indeed not! He is making reference to youngsters who are dyslexic—persons who have difficulty deriving information from the printed word.

Given the educational system that we have and the mandate to re-vitalize our social and economic systems through bringing the masses into them,[1] building remedial and compensatory components into traditional general education courses, redesigning those courses (whatever their subject matter content) so that key concepts rather than already developed discriminatory powers are taught and tested for, and building up reading, writing and computational skills, must become matters of highest priority. Included in these priorities must also be an emphasis on the present to counter-balance the university's traditional emphasis on the past and future (including the structuring of field experiences in community situations on which academic skills may be brought to bear).

We shall not dwell here on a general education model but shall take up the question of special education systems and their supportive components. Before we do, shall we delineate the expected outcomes of a general education? These should include an understanding of the following:

1. How to learn
2. Thought processes and how they interrelate
3. The methodologies of principal subject matters
4. Differences between mathematical and empirical proof
5. The importance of moral and esthetic criteria
6. The importance of affective phenomena, including healthy interpersonal relations

7. Man as a biochemical entity with a personal and social history
8. The world in contexts that are socio-economic, political, and geographic
9. Servo-mechanisms and modern thought and plannings

This having been said, full educational opportunity is dependent upon understanding the above, getting prior acquisition of the appropriate basic skills, developing proper study habits, and becoming affectively and cognitively operational.

Since our educational system is pre-occupied with cognitive rather than affective capabilities (and this, also, is a subject that needs special treatment), it is important to review the primary objectives of the non-affective components of instruction at secondary and post-secondary levels. By subject reference they are:

Reading

Getting results in student capacities to:

1. draw correct inferences from passages read;
2. recognize word meanings in the context of the passage read;
3. perceive and understand details within the passage read;
4. remember and interpret what is read;

English

1. use correct punctuation, capitalization, and grammar;
2. show reasonable proficiency in diction, phraseology and the organization of ideas;

Social Studies

1. grasp implied meaning;
2. infer points of view, attitudes and values;
3. forecast consequences of different courses of action;
4. detect inconsistencies in arguments;
5. differentiate fact from opinion;

Mathematics

1. master basic computational skills;
2. demonstrate capacity to discover patterns;
3. solve quantitative problems involving the application of knowledge of proportions and percentages, costs, and profits and interest;

4. demonstrate capacity to handle first degree equations in one or two unknowns, compute areas of polygons, determine angular relationships and apply Pythagorean theorems;
5. interpret graphs and charts (also important to reading);

Sciences

1. understand the methods of science;
2. grasp the nature of experimentation;
3. comprehend the processes by which scientists develop new insights;
4. trace the steps that scientists follow in arriving at generalizations and conclusions;
5. understand the nature of cause and effect;
6. demonstrate the capacity to apply scientific principles.

Ideally, a student who has completed his general education will be in a position to demonstrate proficiency in the above. If not, he should be required to eliminate his deficiencies before passing on to more sophisticated subject matter.

The EPIS Program at SUNY-Buffalo

One model of an operational program (there have been 93 graduates with a collective average of 2.83 on a 4 point system, including 5 Phi Beta Kappas) is the EPIS program at State University of New York (SUNY) at Buffalo. EPIS stands for Experimental Program in Independent Study, but this is essentially a SEEK program.

EPIS Function

The purpose of EPIS is to broaden educational opportunity. To this end, it recruits students on the basis of potential rather than on the basis of academic skill demonstrated in high school. In order to make promised opportunity real, this program provides students with financial and educational assistance which justify the University's insistence that EPIS students complete the academic program as competently as students recruited by conventional criteria.

Administration

This program has its own director. At the same time, it is housed within the Division of Undergraduate Studies, and is served by a person in academic development at the Vice Presidential level. This senior administrator lays plans for the cooperation of EPIS with other university programs, is responsible for evaluating the educational techniques employed, and for designing new methods of teaching academic skills.

Admissions

Students are admitted into the EPIS program by an Admissions Committee or committees composed of representatives from the EPIS staff, the EPIS student association, Admissions and Records, the Faculty Senate and the communities from which the bulk of the student applicants come. The precise criteria for admissions are developed through consultation with the groups designated for representation on the Admissions Committees.

Financial Aids

EPIS students are awarded financial aid by the same procedures as are other students. Amounts depend on demonstrated needs. The first concern is support for students who are required or strongly advised to take reading and study skills courses.

Summer Program

The EPIS summer program stresses reading skills, study skills, and provides an orientation program which introduces the students to test taking strategies, the library, and coping skills necessary to academic survival.

Curriculum during the Academic Year

Because of the intensive preparation in reading and other skills provided during the summer, the freshman year of the EPIS student is not very different from that of any other university student. Courses in English composition, creative expression and mathematics or logic are

mandated, along with reading as needed. The course in composition is taught by graduate instructors in English with the help of graduate student assistants. Students write papers, some short and some long. Many of the papers are responses to personal experiences; others are on assigned topics. Others require research in the library and include tours of the library. The major difference between this writing course and traditional writing courses is that the EPIS course provides considerable personal attention to the needs of each student in writing skills (including grammar, punctuation, spelling) and thinking processes (making outlines, developing central ideas, discovering central ideas in the writing of others, etc.). The course terminates when students can do the kinds of thinking and writing that are required on examinations and term papers in general courses.

The course in creative expression is also open to those EPIS students whose skill deficiencies are minimal and non-EPIS students. For the first month or so, each class reads and discusses (or sees and discusses) books, films, plays, demonstrations, etc. that they select with the instructor. Once the students discover their interests, they prepare papers on those subjects; classes are limited to 10 students. The instructors use these papers as a base for student interaction or encounters. The forms of these encounters come from the imagination and interests of each group. The following categories are possibilities:

RATIONAL ARGUMENT, such as formal one-to-one confrontation, small group debate (panels) public address (one student addressing a group).

AESTHETIC ARGUMENT, which might include psychodrama, poetry reading, happenings, etc.

PERSONAL ARGUMENT, conviction through the relating of personal experience

The course is designed to be a combination of free expression and disciplined control, an experience through which the students may understand that all forms of expression, especially language, are freedom, are power, and that the student may encounter some new forms that are especially powerful for him.

The mathematics course provides for an intensive review of basic and high school mathematics through trigonometry and intermediate algebra. It is taught by graduate students from the fields of mathematics and engineering and supervised by an associate professor in the physics department.

On the basis of an initial placement examination, students are placed in one of three sections, X, Y, and Z. Section X begins at fractions and runs two semesters through trigonometry and intermediate algebra. Section Y begins with algebra and Section Z with geometry and trigonometry. These sections run one semester. Each class has 5 or 6 students to an instructor and allows for maximum individual attention. Class periods include short quizzes and problem work at the blackboard.

A professor in the philosophy department developed a course which focuses on the structure of analytic thought. Logic is offered as an alternative to mathematics and as a method for developing rigorous conceptual tools. An alternate course developed by the philosophy professor is Philosophy as an Activity. This course studies perennial philosophical problems—truth, reality, definition, ethical values, etc.—by raising these problems in dynamic ways. Examples of the types of material used and problems raised are:

1. Hannah Greene's "I Never Promised You a Rose Garden" – perception of reality and the meaning of and criteria for truths
2. Sections of Frantz Fanon's "The Wretched of the Earth" and selections from Martin Luther King's work on violence vs. non-violence argumentation
3. Eldridge Cleaver's "Soul on Ice" - problems of definition

The skills developed in this course will be those prerequisite to any future work, not only in philosophy, but also in any discipline where clear and concise thought is necessary.

Grades and Standards

EPIS students get no credit for the special summer orientation. They do receive four semester hours credit for reading under independent study. This credit is awarded, however, only after the students' reading skills are at a post-secondary level. Since the other courses (Composition, Creative Expression, Mathematics Review, Logic, Philosophy as an Activity) are offered in departments, they carry full credit toward graduation.

Counseling

There is one counselor-teacher per 50 EPIS students. These counselors go to the students, at home, in the dormitories, at work, in

the cafeteria, or wherever to find out their problems. The counseling program is, in reality, an adjunct of the academic program.

Community Relations and Community Support

The EPIS program is seen as an instrumentality that helps to link the University and the local inner-city community. Such a linkage requires substantive interchanges between the two entities, including supervised and credit-bearing work-study experiences by inner-city students in community social agencies. Education is viewed by the administrators of the EPIS program as a process that demands a substantial amount of solid knowledge and skills in which only the University has competence. On the other hand, the success of a program stressing supportive education requires an input of knowledge and skills that only the community possesses. The need is to define the specific areas of competency of each and to synthesize them so as to produce a solidly-founded overall educational program. To this end, the Office of Urban Affairs in the university contributes its resources and expertise toward the development of an operational structure that facilitates an effective and realistic community involvement in the EPIS program.

Testing

Pre- and post-testing contributes to judgments made about the success of that aspect of the EPIS program designed to increase academic skills. Tests are used for placement purposes, the individualizing of reading, English and mathematics instruction, and assuring the effectiveness of the EPIS academic component. While tests are not used for purposes of exclusion, failure of students to show reasonable progress on quantitative instruments may result in their being counseled out of the program.

Evaluation and Research

The EPIS staff engages in research to determine non-traditional predictors of academic success. Work in co-variant analysis in connection with the EPIS program is becoming commonplace among graduate students in the counseling department who work in the program. A breakthrough in an understanding of the factors contributing to academic and creative success among so-called disadvantaged

students is expected shortly.

Your writer who, at one time, had primary responsibility for the EPIS design, noted several years ago that EPIS should set the stage for intensive research in the teaching-learning problems of the so-called disadvantaged, and the development of and experimentation with instructional units of a non-traditional type; for example, non-verbal units to sharpen the deductive processes and to improve the ability to handle variables, etc. Further, that EPIS should lead to the development of theoretical and practical models for satellite operations within the community, where the nation's primary educational problems are in need of resolution.

We might conclude this summary by a statement on how to get total university commitment to a program model such as the one described. The primary link with the university should be through the Academic Vice President or a counterpart officer. Secondary links should be made with various university elements as indicated on the enclosed counseling flow chart.

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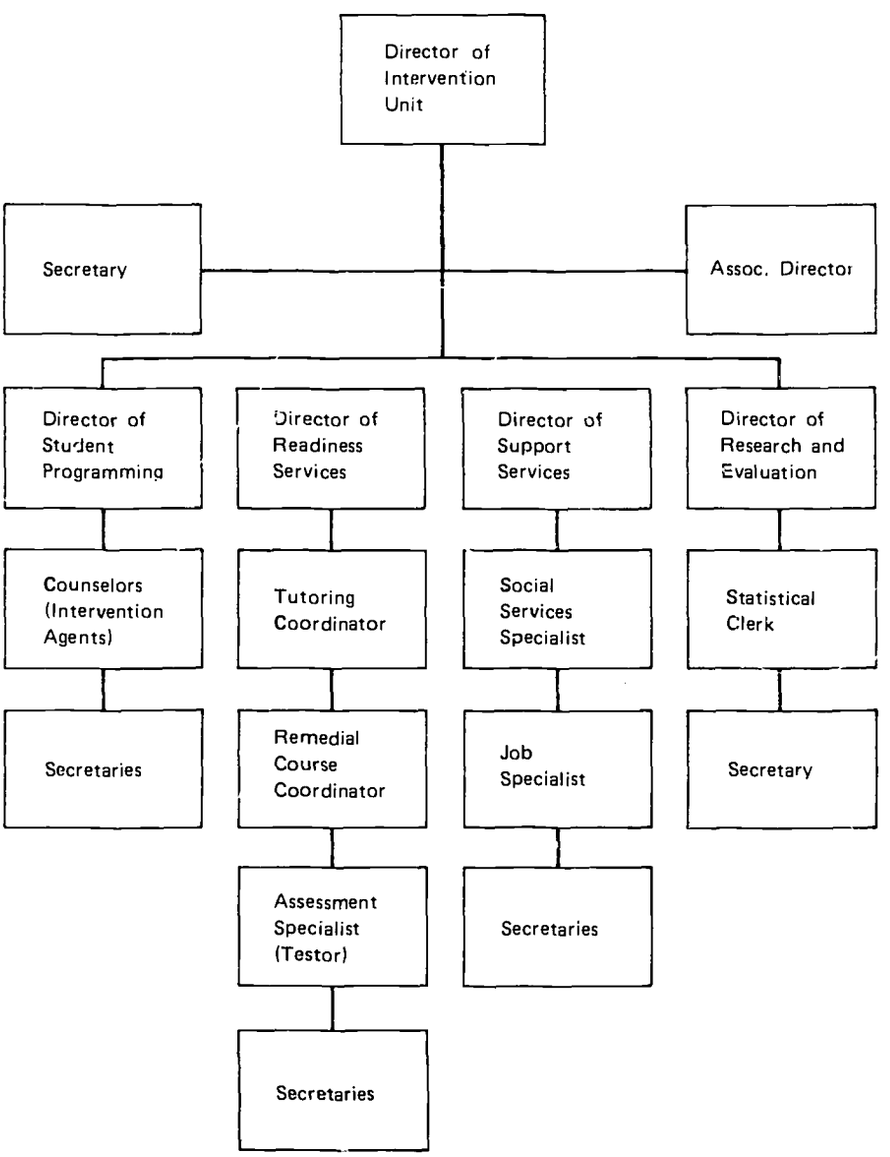
1 See the new Higher Education Bill and the 1972 Manpower Report to the President.

COUNSELING FLOW CHART



The Director of the Intervention Unit is responsible for the overall administration of intervention services (counseling, advising, social services, etc.)

INSTITUTIONAL RESEARCH– A BASIS FOR CURRICULUM CHANGE

M. Ray Loree

> Alice never could quite make out, in thinking it over afterwards, how it was that they began; all she remembers is, that they were running hand in hand, and the Queen went so fast that it was all she could do to keep up with her: and still the Queen kept crying "Faster! Faster!" but Alice felt she could not go faster, though she had no breath left to say so. (p. 187)
>
> . . ."Well in our country," said Alice, still panting a little, "you'd generally get to somewhere else—if you ran very fast for a long time as we've been doing."
>
> "A slow sort of country!" said the Queen. "Now, here, you see, it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!" (p. 189, Lewis Carroll, Alice's Adventures in Wonderland and Through the Looking Glass. New York: The World Publishing Company, 1946).

The college administrator in the 1970's can empathize with Lewis Carroll's delightful character Alice in Through the Looking Glass when she is told she must run at least twice as fast as she can run to get somewhere else. The task of higher education in the post World War II years was to expand plant facilities, faculties, and course offerings to take care of a rapidly expanding college population and a generally satisfactory demand from industry, government, and the professions for the college graduate. Increases in student enrollment in colleges are expected to moderate in the seventies,[1] and for many colleges decreases are likely to occur. Opportunities for college graduates in the professions, in industry, and in governmental services are becoming limited. For colleges to survive in the 1970's their administrators are finding they must modify their institution's structure, goals, programs, services, and priorities.

The Black Colleges in the 1970's

Kenneth B. Clark contends ". . . that the destiny of Negroes in higher education in America, the future and the destiny of the predominantly Negro colleges, will be determined not by anything that is strong or weak about Negro colleges themselves, but will be determined by the quality, the substance, and integrity of predominantly white colleges and universities in America."[2] Clark points out that major American universities and colleges have failed to provide leadership on issues of social and racial justice in America. The bulk of educated Negroes in the nineteenth and the early part of the twentieth century were educated in predominantly black colleges. During the 1930's and 1940's major predominantly white universities did not invite outstanding Negro scholars to join their faculties. This loss to the white universities resulted in gains in the statures of the major black universities and colleges. As Clark observes: "Without doubt, the seeds of the recent stages of the Civil Rights Movement were sown and nurtured in the fertile soil of the climate of protest generated and sustained in Negro colleges in the twenties, the thirties, and the forties."[3] Thus ironically, Negro colleges gained strength during these years through the moral failure of prestigious white universities and colleges.

The central theme of this paper is that black colleges are likely to play a vital and a crucial role in America in the 1970's to the extent that they are able to identify and work effectively in problem areas in which (a) moral and intellectual leadership are desperately needed; and (b) this leadership is not likely to emerge unless it is forthcoming from black colleges. In this paper three problem areas will be discussed. These are:

1. The problem of providing higher education for youth from lower income homes;
2. The problem of developing a cultural pluralism in America;
3. The problem of adjusting educational programs to changing vocational opportunities in America.

Solid factual information is needed in order to think constructively in any one of these problem areas. Hence of major importance to college administrators in black colleges is the role of an institutional researcher—a person responsible for acquiring the factual information needed for making intelligent decisions concerning academic programs.

Higher Education for Low Income Youth

A great advance in the implementation of democratic ideals in education became possible when it was recognized within democracies that the state had an obligation to ensure that each child should receive as much education as he was capable of receiving. But the responsibility of meeting an arbitrarily defined educational standard rested with each child within a school system. It remained for America to postulate a new democratic educational ideal—i.e., that the state had the responsibility of providing that kind of education which would benefit each child, regardless of his initial ability. This ideal, although imperfectly implemented, does exist in America at the elementary and secondary school levels. Efforts are being made (although these efforts are by no means adequate or sufficiently wide spread) to gear educational programs to the needs and the ability levels of the elementary and the secondary school child. It is much more difficult to detect such efforts within higher education—even within black colleges and within junior colleges in the country. The effort has been rather to accept the traditional academic program, provide remedial instruction for those who demonstrate low aptitudes for such programs, and then flunk out of college those students who fail to adapt to this inflexible college material mold.

The problem of adapting educational programs in colleges and universities to the needs and the ability levels of low income youth should be of concern to administrators of many predominantly white institutions. It has been estimated that, while there are two million nonwhite children, there are six million white children between grades two and twelve who come from urban and rural homes below the poverty level.[4] The post-secondary school program that would most adequately meet the needs of many of these eight million low income youth might deviate markedly from the traditional academic college program.

The argument that the student of low academic aptitude is just not college material and had best enroll in a trade school merely shifts the responsibility for providing the appropriate program to the trade school. Certainly the approach of teaching a person a trade has some weaknesses. In this dynamic society in which we live, trades disappear within a fraction of a lifetime. Re-education is becoming necessary in one trade after another. Learning how to learn is becoming more important than the learning of a single trade. Additionally, the low

academic aptitude student requires something akin to education in the social sciences and in the humanities in order to live a satisfying, productive life in this complex society of ours. Perhaps trade schools will come up with the best answer for an education for the student of low academic aptitude. But we should not bet on it. Possibly our best answer may come from black colleges, junior colleges or community colleges.

One important role of the institutional researcher is to keep informed about innovative programs in higher education that are designed to meet the educational needs of low aptitude, low income youth. More about this problem later.

But all lower income youth are not lacking in academic aptitude. Bayton[5] identifies three types of students within institutions of higher education:

1. Students superior in personal capacity, and motivation, and in socio-cultural experiential background;
2. Students who have completed high school but do not have the "native capacity to benefit from any sound program of higher education";
3. Students who have the native ability to benefit from a sound or superior program, but whose socio-cultural experiential background is deficient.

Some universities and colleges are attempting to provide educational opportunities for low income youth. Gordon and Wilkerson[6] report the findings of a study of the status of compensatory programs throughout the country in 1964. Questionnaires were mailed to 2093 institutions throughout the country. Of the 610 institutions responding, 224 institutions (37%) reported that they were conducting a variety of compensatory practices. Through special recruiting efforts, modifications in admissions criteria, financial assistance, and a variety of types of preparatory programs for high school students or high school graduates, many institutions are helping a large number of socially disadvantaged begin college careers. Parallel practices following admission designed to help students succeed included: special counseling and guidance services; non-credit remedial courses; college level remedial courses yielding credit; instruction in study skills; tutoring; special curriculums; lengthened time for completing degree courses; and certain postgraduate arrangements. Little systematic evaluation of compensatory programs and practices in higher education was found.

For the most part compensatory education programs within higher

education are designed to prepare low income youth to cope with traditional academic programs. Hence measures of academic aptitude and past academic achievement are predictive of student performance in such programs, although social class and race may modify the degree of predictability of any one measure.[7].[8].[9] Philip H. DuBois has observed:

> . . . It is really only in recent years that we have realized that all test scores, whether they are called aptitude scores or achievement scores or something else, are related to prior experiences, some more, some less. While granting that prior experiences themselves are in many instances qualifying for an educational or vocational experience, we still lack knowledge of how to combine salient facts about the prior history of the individual with test results and other observations so as to permit the best possible decision about the individual, considering his own interests and the interests of the organization and of society.[10]

The role of the institutional researcher is to supply academic decision makers with information relevant to their problems. With respect to the development of a student selection policy and possible subsequent academic program adjustment, the institutional researcher's task is fivefold:

1. To conduct predictive studies so that the institution is increasingly able to identify the students who are likely to fail under the existing academic program.
2. Identify the options on how to cope with the potential failure:
   a. refuse admission;
   b. admit but provide a compensatory education program designed to improve the chances of success for the potential failure;
   c. change program to one more in line with the needs and the aptitudes of the potential failure.
3. Providing the academic decision maker with information that could be of value in implementing the option. (This and each of the following sub-tasks become unnecessary if the potential failure is refused admission.)
   a. if it is decided to provide a compensatory program, then information is needed concerning the success of various

types of compensatory programs that have been tried throughout the country.

b. if it is decided to modify the program of the college, again information is necessary concerning current efforts to gear higher education to the needs and aptitudes of low academic aptitude students.

4. Design and implement evaluative procedures to assess the success of the strategy adopted.
5. Continue to report to the academic decision maker new information about the various options as well as data on the success of the strategy selected.

Compensatory education programs have been the result of most efforts to meet the higher education needs of low income youth. But a case can be made that our traditional academic programs are ill suited to the needs of low income youth. We are not lacking in studies on the degree to which the socioeconomic status of a youth's family is associated with his attendance at and completion of college (See Feldman[11] Riesman and Jencks[12], Jerome[13], and Wolff[14], discussions of the 'gatekeeper function of higher education'—i.e., colleges as watch dogs of the upper-middle class). The task of designing educational programs that meet the needs of low income youth is no task for the timid. One must be willing to withstand charges of "lowering academic standards" and to withstand the intellectual snobbery of tradition-bound academicians.

Yet the path of non-traditional education has its dangers. We are apt to embrance the new just because it is new rather than because of its proven value. Our rebellion against the rigidity of old ways of doing things may merely be replaced by an equally rigid and intractable adherence to some new way of doing things. And in our dissatisfaction with what is inadequate with present-day higher education, we may be tempted to discard traditional educational practices before we have something with some degree of proven effectiveness to take its place.

We have much to learn about the kind of changes that must be made in higher education if new populations are to be served adequately. Samuel B. Gould[15] suggests two fundamental elements that need to be added to our present system as we enter an era of full educational opportunity. To quote Gould:

> Non-traditional study still defies truly accurate definition but some of its elements can be readily identified. The most fundamental elements are those of flexibility and individual-

ized learning. The disappearance of current rigidities in our educational patterns—whether they relate to access, or number of courses or credit hours, or type of course modules, or time limits, or whatever else—is now a clear necessity. . . . We are not yet making our process of selectivity according to individual need, proved by capability and motivation, instead of rejecting them according to arbitrary norms. Our new system, however it may be devised in detail, must be based on individual choice of goals and individualized progress toward those goals (p. 96).

We have little knowledge at this time about what new elements or patterns of elements in higher education are needed to serve low income youth. Work and other kinds of experience integrated with study; new subject matter, or new organizations of old subject matter; greater involvement in the community; more imaginative use of the new communication media—these and many other innovations may prove to be effective.

Calvin W. Taylor's[16,17] multiple talent theory may have relevance for the post-secondary school education of low income youth. Taylor maintains that our 2,800 colleges and universities cater to the academically talented, and therefore lose nearly half a million high school graduates a year who have other than academic talents. What is needed, argues Taylor, are schools and colleges devoted to the development in youth of other types of talents. To quote Taylor:

> Do we want to follow the past tradition entirely or do we want to innovate by adding first creative talents to the academic talents now being cultivated? In other words, do we want our students to be merely learners but also thinkers, not only memorizers and imitators but also searchers and innovators; not merely scholars of past knowledge but also producers of new knowledge. . . (p. 18).

Taylor lists five talents (in addition to academic talent) that deserve consideration in developing courses in our schools and colleges. These talents are:

1. communicating;
2. decision making;
3. planning;
4. forecasting;
5. creativity or productive thinking.

Clearly, a major challenge facing colleges and universities in the

1970's is that of developing curricula that are more suitable to the talents of low income youth than our present traditional academic fare. An important task of institutional researchers in black colleges in the 1970's is that of bringing to the attention of curriculum decision makers the promising experimental programs in higher education for low income youth as such programs develop throughout the country.

Cultural Pluralism

In an address presented at a recent National Foreign Policy Conference for Leaders in Higher Education, Paul G. Orr notes that higher educational institutions tend to become "organization bound and laden with traditions which have worked well in the past, but which have given rise to premises which must be questioned and often revised or replaced with new ones."[19] One such premise in need of revision is that:

> Formal education is the 'melting pot,' the vehicle for 'Americanization,' the glue which melds diverse peoples (cultures) together—it integrates all differences and assimilates different races, cultures, ethnic and linguistic groups into a people with more similarities than differences.[20]

This "melting pot" function of education needs to be replaced by a "cultural pluralism" goal. Orr contends that:

> Cultural pluralism—in which each child and adult does not suppress his own heritage—is not inconsistent with a democratic society but the essence of it—self realization, pride, respect for self and others—and vital to a common future need—tolerance for differences.[21]

Some major objectives of black studies programs found throughout the country are in tune with the cultural pluralism idea. Vontress[22] discusses four major objectives of black studies programs: (1) to enhance the black self-concept; (2) to train black leaders; (3) to combat discrimination among both the black and white; and (4) to develop "black nationalism." Two of these objectives (1 and 3) clearly represent interests to implement cultural pluralism. The other two objectives too represent efforts to inculcate a pride in one's cultural heritage.

The task of the institutional researcher in aiding a faculty plan, implement and evaluate programs such as that of black studies is threefold:

1. bringing to the attention of the faculty research reports and

other relevant publications;

2. helping the faculty clarify the educational objectives for a proposed new program;
3. conducting an evaluation study of an experimental program once it has been introduced.

Gearing Programs to Vocational Opportunities

Some expansion in employment opportunities for black graduate students occurred in the 1960's. That there is a long road to travel is obvious when one considers that black students comprise less than 3% of the student population in American medical schools; that there are only 3,000 black lawyers in the country, most of whom are concentrated outside the southern region, and that such specialized fields as engineering, architecture, urban planning are comparably under-represented by black practitioners. Ample evidence supports a conclusion that blacks enter the 70's with a larger but still lagging share in the American economy.[2 3]

But while the administrator in the black college is faced with new opportunities for graduates opening up in certain fields, diminishing employment opportunities are now occurring in other fields. For example, it has been estimated that there could be a surplus of more than 1,000,000 potential teachers within four or five years. Thus for colleges and universities that seek to aid students attain vocational goals, it is becoming increasingly imperative to keep well informed on the changing patterns of employment opportunities for college graduates.

The task of assembling information relevant to the vocational opportunities of black graduate students would seem to be appropriately assigned to the institutional researcher in a black college at this point in time. The information assembled should include both studies of national, regional, and local employment trends, and surveys of the employment status of graduates of the institution. Such information could be invaluable to all decision-makers in institutions which have responsibilities for planning and implementing program changes.

The Role of the Institutional Researcher

What then should be the role (relevant to curriculum change) of the institutional researcher in a black college in the 1970's? In general it

is that of assembling the information needed by those responsible for making curriculum decisions. To perform this role successfully the institutional researcher must keep well informed on national trends that are relevant to curriculum problems and on the many ingenious current innovative programs designed to cope with curriculum problems. The institutional researcher must have the resources and capabilities to gather pertinent information within his own institution, and to aid faculty members design, implement, and evaluate experimental innovative programs in their own institution.

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THE IMPLICATIONS OF MINNESOTA METROPOLITAN STATE COLLEGE FOR BLACK HIGHER EDUCATION

David E. Sweet

A reader should approach this paper with the foreknowledge that its author is in no sense an authority on—or even reasonably well-informed about—black institutions of higher education. Despite this lack of empirical knowledge, however, I am confident that what MMSC is doing has many positive implications for those who are responsible for black colleges and universities. This paper is a description of our approach at MMSC to higher education. It seems best to leave to those more familiar with black colleges and universities responsibility for extrapolating the implications of what we are doing for their institutions.

MMSC is a new institution. In May-June 1971 the college was authorized by the Minnesota Legislature, approved by the governor, and established by the Minnesota State College Board, which appointed the president in late June. Between June 1971 and February 1972 a small group of college officers and faculty developed the plans and procedures for what Sidney Marland, U.S. Commissioner of Education, recently termed "one of the most flexible and potentially useful of all the schemes for alternative educational enterprises that have surfaced in the reform debate." Since February of this year the college has been admitting approximately 50 new students per month. By the end of our first full academic-fiscal year, in June 1973 we will have an enrollment of approximately 1,000 students.

For reasons which relate to the educational and political setting in which we were created, the college is primarily an upper-level institution, providing the final two years of a baccalaureate program for students who are admitted after having complete the first two years of college (or its equivalent) elsewhere. It is the considered opinion of college officers, however, that none of the basic characteristics of the institution are peculiar to upper-level education. We stand ready to operate a lower division program should that be necessary. At present, there are six publicly-supported junior colleges in the seven-county metropolitan area we were created to serve, as well as six publicly-supported post-secondary vocational-technical schools. In addition, there are private institutions performing functions similar to the state

junior colleges and the area vocational-technical schools. Thus the reason for our abstaining from offering lower-division work, although we may develop in cooperation with these institutions a lower division program modeled on our program.

In addition to being an upper-level institution, MMSC has another characteristic which makes it atypical in relation to most colleges and universities: Our student body is drawn primarily from among adults—individuals beyond the traditional 18-22 year-old college-going population. This characteristic is also in large part the product of our educational and political environment. By focusing on the needs of this group we do not compete with the various private college and universities in the Twin Cities. At the same time, however, we are significantly broadening collegiate opportunities for those individuals who could not or did not take advantage of whatever opportunities existed when they were 18-22. But of a total population in the metropolitan area of 1.8 million, over one half are over 25 and almost 90% of those over 25 do not have college degrees. It is our contention that many of these can profit personally from having an institution in which to pursue a post-secondary education designed with their needs in mind. And it is quite clear to us that a large portion of this population is not interested in pursuing that education in institutions designed primarily to serve the needs of late adolescents and young adults. Again we would contend that this characteristic of MMSC, while making it atypical, does not materially affect the applicability of what we are doing educationally in relation to serving the needs of different types of students. It may, however, indicate additional populations for other institutions, including black colleges and universities, to consider serving. In addition to focusing on the needs of a somewhat older student body, the college has also been designed with the needs in mind of others outside the traditional college mainstream: women and the economically poor.

Before describing the basic elements of our educational approach, one other characteristic of the institution deserves passing mention. We do not now have—and will not have in the future—a central campus. The entire seven county, Twin Cities metropolitan area is our campus. We utilize existing under- and un-utilized facilities, including commercial and industrial facilities, museums, theatres, libraries, office buildings, and even parks and streets. As you will see, these educational facilities mesh coherently with our entire approach to education.

At the heart of any college it its faculty. At MMSC we have

recruited a small core of full-time, for the most part conventionally trained and experienced professional educators. But we have also surrounded this core with a large number of individuals drawn from the metropolitan community. Such persons, whom we have come to call "community faculty" are individuals who have lived and worked successfully in non-academic settings throughout the cities. Some have advanced academic credentials and teaching experience. Most do not. (Some have no degrees at all.) They have demonstrated capacity both to learn and to apply what they know—qualities sought by our students (and by most students). The community faculty members are full members of the faculty. In no sense are they adjunct to the college. They participate fully as faculty members in college governance and are eligible for faculty rank, tenure status, etc. All that distinguishes them from the other members of the faculty is that they do not serve full-time.

In building the faculty we have sought individuals who have knowledge, experience, insights, values, and a commitment to which students respond. Conventional academic credentials are of limited importance. We require that faculty members share the assumptions on which the institution is built, have competencies for preparing students for contemporary urban living, and have a commitment and a capacity to teach the kinds of students who enroll in the college.

In the interaction between full-time and community faculty members, some of the walls which typically surround an institution of higher education may be lowered if not completely eliminated. Students, instead of being exposed exclusively to a faculty whose members have devoted all of their adult years to academic life, are exposed to a faculty which is largely made up of individuals who currently live and work successfully in the kinds of settings in which most of the students will be functioning for the rest of their lives.

Although we have made no systematic effort to recruit individuals for the community faculty, we have been gratified at the spontaneous response. During the past nine months, over 800 persons inquired about serving, and over 400 have actually applied. The college uses its month-long orientation program for such applicants to identify those who have the necessary qualification. This orientation program includes working with students in what amounts to a practice-teaching situation. Now that it is possible for the college to identify student needs more precisely, we will recruit individuals for the community faculty more systematically. Community faculty members are not volunteers. They

are paid at the same rate as full-time faculty members, although we are developing procedures for paying them which will relate their pay to the competencies actually transmitted to students rather than to time and effort expended.

Three basic commitments are central to our concept of education. First, students are admitted to the college and awarded degrees or certificates on the basis of demonstrated competence and not on the basis of grades, credit hours, or courses taken. Second, the education offered is explicitly "pro-city"—i.e., urban-oriented. Third, at MMSC, each student is the principal architect of his own education. Admittedly these commitments exist in some tension with one another, but jointly they constitute the essence of our approach to education.

By "competence," we mean a combination of knowledge or skill (both mental and motor skill), understanding, and values and attitudes. It may help to understand our use of the term competence (proficiency is another term that might be used) to apply it to the building of a house. An individual might have the skill to use a hammer and nails or to install a sink. But he must also have some understanding of what a house is, how it will function, what the relation is among its various components. And before he will actually construct a house, he must also have a set of values or an attitude which impels him to utilize his knowledge and his understanding in the work at hand. If he considers houses an inferior place of abode (or physical labor undignified) he is not likely to erect any.

We apply this analogy to education. We hold that the point of participating in formal institutions of education is to acquire knowledge and understanding, and the values and attitudes which enable and compel one to use the knowledge and understanding acquired. At MMSC we begin by proposing to students that they need competence in five broad areas. The first of these is competence in basic learning and communication. A student should be able to demonstrate skills, understanding, and attitudes relative to learning itself. He should be able to show that he understands what it means to learn and that he can utilize methods of inquiry, communications skills, and critical and analytical skills. He must have a capacity for identifying issues and recognizing relationships and a generally positive posture in reference to the value and satisfaction of learning. He should be able to read, speak, write, listen, computate.

The second competence area we call civic involvement. This includes not only the political, but also the economic, the social, the

religious, the cultural, etc. Most men live in communities. Decisions which are made by these communities affect individuals, shape them. We believe that formal institutions of education should assist individuals in becoming self-governing. To that end they must teach individuals to participate effectively in the community, in the making of community decisions of all kinds.

At the undergraduate level MMSC is essentially a liberal arts college. But we believe that no one should be granted a bachelor's degree who does not have competence in a vocation, a profession, or a career. It is essential that citizens have the skills necessary to be useful and productive persons, not only to insure economic independence, but also for reasons of self-esteem and satisfaction. No major social system in the 20th century will grant to individuals a share of the goods and services produced unless in some way such individuals contribute to the production or distribution of those goods and services. In other words, individuals must be able to function in the market place. Optimally the educated person has the flexibility for occupational mobility and the learning skills necessary for changes in an ever-increasing instability in the job market. We do not require that students have "college-level" vocations. They may be auto mechanics or plumbers as well as teachers, doctors, or businessmen. Some students come to us not yet committed to any vocation. These we help explore the options. Others have a commitment to learning "for its own sake." We try to help them understand that while it is possible for some few people to function in contemporary America on the basis of learning for its own sake, most can not. We try to help them appreciate the realities of the world as they will find it and to equip them to function in that world. To us this means that they must be able to obtain and hold a job or function on a self-employed basis.

One of the values of our community faculty is that the members of that faculty often illustrate in their lives a commitment to pure learning which has been coupled with a capacity for fitting into the contemporary economy. For this reason we do not seek community faculty members exclusively (or even primarily) for what they can contribute to the vocational competence of our students. We also seek community faculty members who have other kinds of learning to share.

The fourth competency area embraces leisure and recreation. In addition to being learners and communicators, citizens, and workers, men and women must in some sense "re-create" themselves. Individuals must learn to use wisely what is becoming—at least in America—an

increased amount of leisure time. Such competence embraces the ability to distinguish between activities which deplete and activities which renew and restore And it is our conviction that it must transcend spectating and include direct participation in both physical and mental challenges and challenges to one's esthetic sensibilities as well. And competence in this area includes a capacity for developing a continually-evolving set of skills, understandings, and attitudes--life-long leisure competencies.

The fifth competency area we refer to as personal growth and assessment, or maturation. We believe that an educated person is one who is developing a sense of identity as a person of competence and skill. His sense of identity includes his relationships with others, his awareness and understanding of his environment, and his personal security as a productive and valued citizen. One who is educated has an appreciation of complexity and a tolerance for ambiguity without resorting to simplistic answers. He has the capacity to set goals for himself, to modify the goals in light of changed circumstances, to develop strategies for meeting goals, and to relate to others as human beings.

These five competency areas are not mutually exclusive. In fact, they are only conceptually distinct. Each overlaps the others. Neither are they courses of study. They are, rather, educational goals. A person who is competent in all five areas is, we believe, genuinely and liberally educated.

The college's commitment to competency-based education is supplemented by its commitment to the city. It has been said that contemporary colleges and universities are fundamentally anti-city. According to this view academic communities develop values, life styles, and attitudes which reject those of society generally. Students are taught to relate positively to academic values and negatively to the values of the larger community, which today is heavily urbanized. MMSC is "pro-city." The education of students focuses on the needs of the city and on giving students an understanding of how to live and function successfully in large urban areas.

As noted above, the commitments to competency-based and urban-orientation education exist in some tension with the third fundamental commitment. In taking the position that the student must be the principal architect of his own education, the college does not treat the competency areas and the urban commitment as requirements. We do ask each student to confront the competency areas and the

urban commitment in a dialogue with his advisor, other faculty members, and other students. If in the course of such confrontation the student concludes that this concept of education is not pertinent to his goals and aspirations, then with the active support of his advisor he works out an educational plan which is pertinent and meaningful. The college holds that it is the student's education, his life, and he must bear responsibility for it.

In taking this position, we recognize two related facts. First, very little in the student's prior encounter with educational institutions prepares him for accepting responsibility for his own education. On the contrary, previous educational experience will likely have taught him that it is someone else's responsibility to tell him what he must do to be "educated." The college must, therefore, teach most, if not all, of its students how to design and secure their own education.

Second, a college exists to provide each student with intimate and meaningful contact with those who know more than he knows about the things he wants to learn. For this reason the college, and particularly its faculty, do not simply accept as valid any and all educational goals and methods posited by students. The faculty must analyze student educational goals and methods, pointed out that in them which is fallacious, inconsistent, meaningless, or contrary either to the student's or society's best interest. A faculty member performs this function at MMSC, however, not merely by imposing his will upon students, but by confronting students with desirable alternatives and by treating the making of basic decisions about educational goals and methods as fundamental components of the teaching-learning relationships between instructor and student. Thus a faculty member must use his expertise and experience not to impose educational goals and methods on a student, but to teach educational goals and methods. The college also opposes attempts by students (individually or collectively) to impose their educational values on other students.

The question sometimes arises as to whether or not students will take advantage of this commitment to obtain a degree with a minimum of effort and learning. Our experience with the students currently enrolled convinces us that once they have come to understand that they, and they alone, are responsible for their own education and that the educational process is not a game in which the object is to outwit faculty members and subvert externally imposed requirements, they become very serious about their educational objectives and about acquiring competencies in which they have a genuine interest and which

represent high levels of academic achievement.

But a second factor is also at work. The college plays no games with students. Our objective is to record accurately the competencies with which the student enters and the degree of competence he acquires in the time he is enrolled. This is not done by means of a transcript consisting of cryptic course titles followed by letter grades. The transcript which we develop for students is a narrative transcript. It is a comprehensive description of a student's abilities, incorporating evaluations of him by all faculty members with whom he has worked and incorporating a comprehensive final assessment of him at the hands of a final assessment committee structured individually for him. It includes the results of all the assessments of him which occur during his association with the college, including the results of standardized tests, interviews, oral examinations, papers, etc. In short, we propose to be able to report for each of our students a complete picture of what he knows, what he can do, what he has done, what his objectives were in working at MMSC, how he achieved those objectives, and at what level of competence.

To implement the educational commitments outlined above, the college has designed an educational format in which a student undergoes four phases in completing his education. These are: application and admission; orientation; educational pact development and implementation; and final assessment. As with the five competency areas, these phases tend to be conceptually distinguishable but operationally inter-mingled.

During the first phase, application and admission, the student receives written and oral information about the college and its educational structure. He submits transcripts and other descriptive material. He also is interviewed by the admissions staff and begins to work on his self-assessment in the various competency areas. This procedure helps him determine where he is educationally and assists the college in moving him into the orientation phase.

Following admission each student is assigned to an orientation group—eight to twelve in a group. Each group is led by a full-time faculty member. Each group meets four hours a week for three weeks. In addition to the group meetings, the student has at least one hour a week in private conference with his orientation advisor. The tasks to be accomplished during orientation include: reading and discussing the materials supplied by the college outlining the nature of the educational process at MMSC and the rationale behind this process; the further

elaboration of the self-assessment of competencies begun during admission; and the identification of the student's perceived educational needs.

Upon completion of orientation, each student is assigned to a permanent faculty advisor. His adviso: is his primary contact point with the college, its programs and resources. The assignment to an advisor opens the educational pact development and implementation phase of his relationship with the college. From four to six weeks (on the average) the student meets wee .ly with his advisor to organize his educational goals into a coherent plan of study. This plan is called his educational pact. It includes a summary of his already achieved competencies, the educational goals he is pursuing, the teaching-learning strategies he intends to employ to achieve these goals, and the assessment techniques and instruments to be employed by the college to determine that the student has in fact achieved the goals and implemented the strategies contained in his pact.

It often happens that students are unable to draft an educational pact so early in their relationship with the college—that they have not yet settled firmly on educational goals. In these instances. students can and do undertake various learning activities with faculty members, the principal aim of which is to assist the student in defining his goals. It is also very likely that students will modify their educational goals once they have begun to implement their pacts. The college is open to pact modification whenever a student initiates it.

Educational pact implementation takes many forms. The college rejects the position that students can learn only by means of college-sponsored activities. On the contrary, we believe that it is vital for students to take advantage of the rich array of learning opportunities which surround them in the metropolitan area. Thus students are encouraged to learn on the job, in the home, in their neighborhood, at play, etc. The college inventories formal and informal learning opportunities for students, calling attention of students to these opportunities through a variety of communication linkages. In short, the college's position is that it is less important to determine when, where, how, and from whom a student learns, and more important to make it possible for him to learn. We recognize that different people learn in different ways and encourage students to find out how best they learn and to concentrate on those techniques which are of greatest assistance to them.

But the college itself does sponsor teaching-learning activities.

These include independent study, internships, and group-learning experiences. We do not, however, offer courses in the conventional sense. Group learning experiences are flexibly organized around the interests and needs of students. Faculty members can take the initiative in designing these experiences or students may take that initiative. We have no terms, quarters, or semesters. Each learning experience operates on its own calendar. No student may be required to participate in any particular learning experience—nor indeed may a student be required to use college-sponsored learning activities at all. In general, students implement their educational pacts by negotiating contracts for units of study with full-time and community faculty members. Each of these competency unit contracts is a part of the student's strategy for achieving a desired level of competence in the five competency areas. (Of course, for those students who do not follow the competency-based educational pattern with which the college first confronts them, as the educational pact development and implementation phase takes whatever form is appropriate to the individual's own program of study.) Upon the completion of the contract an evaluation of work done and progress made is filed by the student and the appropriate faculty member. The advisor, or course, assists the student in identifying those learning resources-college-sponsored or otherwise-and those full-time and community faculty members likely to be of greatest assistance to him in completing his education pact. (Community faculty members, as noted above, are to be paid for competency contracts satisfactorily completed and not for time and effort expended.)

When the student and his advisor conclude that the student has fulfilled the conditions—the goals—contained in the student's educational pact, the student begins to develop a draft of his narrative transcript, incorporating his pact, any competency contracts he has completed, and whatever assessments of him as are on record. With this draft he then makes application for his degree (or for certification, if he is not seeking a degree) to the Vice President. The Vice President appoints a Final Assessment Committee to review the student's draft narrative transcript and to determine whether or not the student has completed the terms of his educational pact. The Committee prepares the final version of the transcript, including its written assessment of the student. Upon approval of the FAC, the student is eligible for his degree or certificate. If the FAC determines that the student has not fulfilled the terms of his pact, the student may continue his relationship with the college until a FAC is satisfied. It is also possible for a student

(or a faculty member) to appeal a FAC's decision.

What does MMSC imply for black colleges and universities? What follows are not particularly profound observations. I plead here, as at the outset, too little knowledge to be deep.

First, it seems to me that our concept of the community faculty is one especially pertinent to a community becoming increasingly self-conscious and committed to mutual service. Every black college ought to tap black resource faculty for the same reasons MMSC is tapping them. These men and women are so often more relevant as life models for students than are one's full-time faculty. Recognize too how much more flexible they can be. One need not have long-term contracts with them. Their knowledge can often be very immediate. But recognize that they cannot function unless they understand your institution. Make the effort and take the time to give them a clear understanding of what is expected of them. And make them full partners in the enterprise. Don't dangle them as adjuncts. Involve them in the governance of the institution. They have much to offer, for example, when it comes to evaluating full-time staff—including presidents.

Second, I am an imperialist when it comes to competency-based education. If you cannot persuade the faculty to abandon the rigidities of course structures, you ought at least to move in the direction of defining expected outcomes from courses—and then faculty and students should be held to those outcomes. The meaningless accumulation of course titles on a transcript ought to be scrutinized vigorously. Colleges should make a determined effort to find out what its students know when they enter. And they should act on that knowledge. Students should not be forced into curricula designed to serve faculty needs rather than the needs of the individual student.

Third, every student should be permitted or made to accept responsibility for designing and achieving his own education. Paternalism in the curriculum is as dangerous as it is in any other area of college life. Colleges are today dealing with young men and women called upon to perform the highest duties in peace and war. Such young men and women can and should accept much more responsibility in determining educational goals and strategies. A word of caution: in my judgment, however, a college has not made a step forward when it turns over responsibility for the curriculum from the faculty collectively to the students collectively or to the students and the faculty collectively. Neither the students nor the faculty collectively is accountable in any

real way for what happens to a particular student. I conclude, therefore, that only the individual student is accountable and he ought to have authority commensurate with that for which he is accountable.

Fourth, I would urge that the conclusion of an education not be the counting of courses and grades by a clerk in the registrar's office. Colleges need to institute something akin to our Final Assessment Committee to provide each student with a measured picture of himself and to force the student to bring his educational experience to an articulated conclusion.

Fifth, stop asking students where, when, how and from whom they have learned. Focus on whether or not they know. Let them satisfy your requirements however best they can. Stop monopolizing education. Recognize what students know. Let them know they can move through your institution as slowly or as rapidly as they can demonstrate that they know whatever it is you (or hopefully they) have determined they should know. The educational lockstep can be broken.

Finally, recognize that many people who aren't 18 to 22 need your services. Redesign your institutions to accommodate these people. Not only will they be grateful as individuals, but the accomplishments of this group of students may bring distinction to us all.

Those of us responsible for MMSC find our approach to education exciting and satisfying. We see pitfalls. Implementation and design are not always compatible. The faculty, officers, and students of MMSC are conscious–extremely conscious–of the difficulties inherent in our approach to education. But the difficulties of competency assessment, educational and career advising, and the development of individualized educational pacts with our students must not, we believe, inhibit the development of an educational process which validates formal education in demonstrable skills, knowledge, values, attitudes, and understanding, rather than credit hours, grade point averages, intuition, or even gross annual income.

PART II

SEMINARS ON EDUCATIONAL SYSTEMS

INQUIRY-CENTERED TEACHING

Frederick S. Humphries
and
J. Roland Braithwaite

Inquiry-centered teaching and learning is an attempt at redefinition of the classroom. The use of the approach and to effectiveness at the college level are hampered by two tendencies rampant in the educational society. First is the tendency to label the approach. In recent times, the use of inquiry in the classroom, in one form or another, has been named the Socratic method, Inductive–deductive learning, the discovery method, inferential learning, hypothetical mode of learning, etc. The danger is, that once one has assigned a name to the use of inquiry in an educational system, that name assures that one understands all. Any cogent discussion of such named program of what it is and how it works is usually dismissed. The name is not the process and for any purported inquiry approach, the process needs scrutiny and description, and not a name. Second, educators have a tendency to view the inquiry approach as a refinement and extension or modification of older education schemes. Most educators tend to want the inquiry approach to improve the results on standardized examination or in traditional classroom measures. As a result of utilization of inquiry-centered teaching, will students score higher on the Graduate Record Examination or the National Teachers Examination? Will they perform better on specific questions about major fields of study? Will students know more of the knowledge of their discipline? Inquiry-centered teaching is not designed to do better what normative teacher-centered education has attempted. It activates different senses, attitudes and perceptions. It generates a different, bolder, and patient kind of intelligence. If inquiry-centered teaching is to obtain its full potency, teachers, tests, grading systems, and curriculums must change.

The Thirteen-College Curriculum Program—An Example of Inquiry-Centered Teaching

From the start, the men who conceived the Thirteen-College Curriculum Program, envisioned a project designed to effect change in all aspects of the thirteen colleges and universities that participated in the program. The objectives of the program are:

To produce a new style of teaching in the predominately Black College that would result in lower attrition rates and achievement that will be at least equal to or, possibly greater that those gained by students enrolled in traditional classes.

To exert a healthy tension upon the institutions such that a climate is created whereby self-analysis and evaluation continuously exist, and wherein educational changes are made that reflect the results of these two processes.

To develop new attitudes within the teachers in the institutions such that creative and effective curriculum changes can be made and sustained.

The vehicle used in achieving these broad-based objectives became known as the Thirteen-College Curriculum Program.

Thirteen-College Curriculum Program (TCCP)

The educational development efforts of the TCCP have been aimed at (1) developing course content in English, Mathematics, Social Science, Physical Science, Biology, Humanities, and Philosophy that would be more topical and germane to the student's experience than those materials traditionally in use; (2) Defining current problems in the teaching of these courses, along with the ramifications of and possible solutions to those problems; (3) Deriving a philosophy of education that would stimulate teachers enough to think of the need for altering their attitudes toward their role in the classroom and their students' academic problems and basic needs; and (4) developing methodologies and techniques that would stimulate and improve students' learning processes, and motivate students to assume an active role in their own learning.

The materials and techniques that have been developed are based upon three assumptions. The first, and probably most important assumption is that students can be more effectively motivated to learn and to become involved in the learning process when they are placed in a student-centered academic environment in which pedagogy and curriculum materials combine to ignite their intellectual curiosity; encourage a free exchange and expression of their own life styles, ideas, reflections, private insights and experiences; build more positive

self-images; develop conceptual understanding of discipline; and enhance problem solving abilities. The second assumption is that optimum learning conditions are more apt to occur if teachers assume roles as student guides and curriculum innovators, than when they assume the stance of classroom arbiters and, presumably, sources of all worthwhile knowledge. The final assumption is that teachers, when freed from the structures of syllabi and rigid course content, become more creative and responsive to student's needs and, thereby, make their teaching more pertinent to the students and more enjoyable for themselves.

With these aims and assumptions as guides, the teachers of the TCCP, along with the ISE staff, have developed the kind of curricular materials and teaching strategies that promote the desired classroom atmosphere and academic results. The material core of the new curriculum is as follows:

A. English (4 themes)
   1. Choice
   2. Responsibility
   3. Love
   4. Self and Alienation

B. Social Science (Sequences)
   1. The Basis of Community and Society
   2. The Structure of Community Control
   3. The Black Experience

C. Mathematics (Units)
   1. Experimental Mathematics
   2. Tools and Concepts
   3. Functions
   4. Similarity and Trigonometry
   5. Consumer Mathematics
   6. Sets and Logic
   7. Computer Science
   8. The Real Number System
   9. Probability and Statistics
   10. Problem Book in Mathematics

D. Biology (Units)
   1. Nature of Science

2. Evolution
3. The Cell
4. Metabolism and Regulatory Mechanism
5. Reproduction, Growth and Development
6. Nature of Living Things
7. Genetics
8. Ecology
9. Laboratory Activities

E. Physical Science (Units)
1. Nature of Physical Science
2. Conservation Laws – Momentum and Energy
3. Gas Laws and Kinetic Theory
4. Light
5. Chemistry, Part I – A Macroscopic View
6. Chemistry, Part II – A Microscopic View
7. Chemistry, Part III – An Introduction to Organic Chemistry
8. Optics

F. Humanities
1. Man – His Creative Awareness

G. Philosophy (Units)
1. Epistemology
2. Social and Political Thought
3. Philosophy of Religion
4. African World-View

Within each of the themes or units, a number of techniques have been developed for engendering in students a positive self-concept which is coupled with a hearty thirst for knowledge, and critical thinking stemming from processes of association necessary for making connections between life in general, one's own experiences in particular, and the works one reads or creates; and a more positive attitude toward writing, stemming from a desire to communicate one's creative thoughts with respect to science, mathematics and humanities.

Structural Considerations

A. Academic

The TCCP consists of seven courses. English (Ideas and their Expression), Mathematics (Quantitative and Analytical Thinking), Social Science (Social Institutions—Their Nature and Change), Biological, and Physical Science are first year college courses. Humanities (Man and His Creative Awareness) and Philosophy are second year college courses.

Each first year courses receives four credits and each second year course receives three credits. Students, enrolled in the first year, take only four courses in any given semester or quarter. If Biology is taken the first semester or quarter, physical science is taken the second semester or quarter and vice versa. All first-year students are enrolled completely in TCCP courses. In the second year, students are 2/5 and 3/5 out. Most colleges allow students to enroll in 15 credit hours of instruction. At the sophomore level, TCCP Humanities and Philosophy courses count for six credit hours only, which is 2/5 of the normal class load of students. The other 3/5 load is used to begin major- and minor-area work.

B. Personne.

We consider an ideal unit:

1. 150 students
2. Eight teachers, two in social science, two in English, two in mathematics, one in biology, one in physical science
3. One counselor
4. One director (Teacher/director).

Teachers, counselor, and director only work with 150 students. Such a personnel arrangement provides a ratio of 75 students per teacher and a teaching load of 12 contact hours for instructors in math, English and social science, and 18 contact hours in Biology and physical science. For the sophomore courses, one teacher is responsible for instructing 100 students. Twenty-five students per section has proved to be an effective class size. Thus, each teacher at the sophomore level would have four sections which would meet in three-credit hour courses.

Summary of Educational Constraints

The TCCP is a complete program, and as such, it can be defined as a composite of the four broad areas of teaching style, role of teacher, curriculum materials, and student expectations.

Perhaps the best way to understand the TCCP is then to list simply under the four broad areas of teaching style, role of teacher, criteria for the selection of curriculum materials, and expected student behaviour, what they include and what they exclude.

A. Teaching Style of TCCP

1. Includes:

a. Course activities which always begin with the familiar, immediate and concrete and allow students to deal with their own questions and concerns.

Activities which take into account the keen awareness of Black students.

Emphasis on relationships between outgoing life experiences and learning experiences.

b. Collective perceptions of individual students and teacher as primary sources—bolstered by in-class exchange and examination of one's own opinions and experiences and by participant conservation on campus and in neighboring communities. (Only after students have clarified their own views, do they move into critical comparisons of their own analyses with those of "authorities".)

c. Students viewed as scientists (whether the discipline is Social Science, or English, or Mathematics, or Biology, or Physical Science) posing and beginning to resolve problems.

Analyzing basic assumptions behind situations and beginning to develop viable alternatives.

Academic programs which aim to integrate thinking about society with acting in society.

Approaching contemporary life situations in their totality, i.e., in a truly interdisciplinary way.

d. Community as classroom and classroom as community: students examine their own objective situation.

e. Student engagement with unresolved questions. (Unresolved here means controversial or never adequately approached and/or answered.)

Open-ended issues which stimulate continuing exploration.

2. Excludes:

a. Academic artificiality and a need to begin with and cover, according to predetermined schedule, the questions and answers of others.

Conformity to a pre-packaged course.

b. Abstract theoretical beginnings and escapes into bookishness.

c. Long, dull lectures and lack of opportunity for students to express and examine their own views and explore their own creative talents.

d. Memorization of isolated facts, as the primary focus of an educational experience.

B. Role of the Teacher

1. Includes:

a. Sensitivity to student's concerns and flexibility in allowing class to follow through on these.

b. Spontaneity and openness.

c. Stimulation of dialogue so that basis of student's opinions can be clarified and opinions of themselves bolstered.

Meaningful interaction with students on both personal and intellectual levels.

d. Teacher as learner and part of class.

Breakdown of separate roles such as teacher, student, community resident as springboard to dialogue.

Teacher participates in open-ended learning experiences with students.

e. Teacher guides and is guided by student responses and issues.

f. Teacher is responsible for seeing that problems posed become progressively more complex and profound.

Teacher is responsible for seeing that students move towards engagement with unresolved problems.

g. Teacher creation and testing of curriculum.

Teacher and student determination of depth of exploration and schedule.

h. Teacher as Socrates and Devil's Advocate.

2. Excludes:

a. Teacher as repository of unquestioned facts.

Teacher as mere dispensers of information.

b. Monotony of routine and one-way "communication".

c. Separate areas (physical and intellectual) marked "student" and "teacher".

d. Teacher as final arbiter in matters of opinion.

e. Syllabus imposed from source outside the classroom.

C. Criteria for selection of curriculum materials.

1. Criteria for inclusion:

a. Materials which deal with questions that the students themselves consider relevant. Primary sources are preferred.

b. Materials, be they formal literature in any discipline that are easily accessible to students and that, initially at least, deal with concepts in a concrete, immediate way. Only after this type of reading (or listening and viewing as in the cases of films and records) do students encounter more removed, theoretical, and abstract materials.

c. Materials, especially non-Western (i.e., African) that will reflect cross-cultural in parallel situations.

2. Criteria for Exclusion:

a. Materials that are so esoteric or removed from the students' objective situation that they are irrelevant.

b. Textbooks – due to their generally extensive and closed rather than intensive and open-ended treatment of problems–used as a single source.

D. Expected Student Behavior:

1. Includes:

a. Excitement with learning: maximum participation in

class and continued exploration outside of class of questions left unresolved in class.

b. Generating insistently larger questions of meaning and purpose.

c. Increasing ability to: isolate and critically analyze contradictions; examine thoroughly the context, purposes, and meaning of contemporary web of social institutions and, analyze effects of own and others' frame of reference; and to solve problems in a well-ordered individual manner.

d. Acting on the belief that they can and do shape the structure and content of their own learning experiences.

2. Excludes:

a. Passivity: not questioning assumptions and ramifications of assumptions made by oneself, other students, teachers, and authors read.

b. Fragmentation of academic disciplines: not seeing interrelatedness of all factors entering into contemporary life situations.

c. Learning as merely an in-the-classroom occurrence separate from one's life experience.

d. Boredom and timidity.

ACCOUNTABILITY BASED LEARNING ENVIRONMENT SYSTEMS

Renee Westcott

Although the systems approach to individualized instruction is new terminology to many educators, the basic concepts have existed for a long time. Ralph Tyler was one of the original thinkers on this approach to instruction as early as 1935. A systems approach involves six basic steps: (1) rationale; (2) specified performance objectives; (3) pre-test; (4) learning activities; (5) post-test; and (6) revision. This "systems cycle" is used to continuously improve instruction until most students have achieved learning mastery.

This presentation is intended to be operational, rather than theoretical, because its purpose is to guide the systematic development of individualized instructional materials.

Let's examine each of these six phases in greater detail.

The Rationale

The rationale explains why it is important (or relevant) for the learner to achieve the objectives. The learner must recognize why it is important that he master the knowledge and skills dealt with in the unit. Without this sense of purpose, learning tasks may be viewed simply as a series of hurdles the student must clear rather than as meaningful experiences. Typically, students find course work relevant if it applies to desired future academic work in the subject field, relates to job or career interests, or enriches their everyday lives.

Learner Performance Objectives

General objectives provide a sense of direction to learners in regard to a unit, a course, or an entire educational program. Specific objectives communicate measurable performance criteria in terms of the learner's expected performance. They tell what the learner will be expected to do after instruction that he could not do before. For example, consider the following specific objective: "Given a list of 50 contemporary American authors and a list of 50 novels written by those authors, the learner will correctly match 45 of the novels and authors." Note that

this objective (a) is in terms of what the learner will be expected to do ("He will match."); (b) gives the conditions under which he will perform ("given a list of 50 contemporary American authors and list of 50 novels written by those authors"); and (c) states the level of acceptable performance ("correctly match 45 of the novels and authors"). (A mastery level of 90% is expected.) Specifying learning outcomes also gives direction to the assessment of learning.

Objectives suggest the test questions that should be used to collect evidence of learner performance, and to verify the effectiveness of instruction.

Objectives can be classified as predominantly: (a) cognitive (intellectual processes) such as, "the student will correctly analyze 5 out of 6 chemical compounds into their elements"; (b) affective (feelings and attitudes) such as "the student will select one of three given well-known paintings, and defend his choice"; or (c) psychomotor (perceptual-manipulative skills) such as "given an acre of land, the student will plot it with standard surveyors' tools, with all dimensions accurate in degrees, minutes and seconds of latitude and longitude."

Specific objectives should suggest the size of the learning tasks and the grouping of learning activities, because research indicates that small learning units may be more easily mastered than very large units.

Pre-Test

A pre-test of learner capability often precedes formal instruction. This pre-test, based upon the objectives of the unit of instruction, helps to determine: (a) whether the learner has the prerequisite skills or knowledge to be able to profit from the instruction; (b) whether the learner already has mastered some or all of the performance objectives; and (c) where the learner should be placed in the sequence of learning activities so that he is not forced to go through material he already knows. A pre-test score before instruction, compared with a post-test score after instruction, provides tangible evidence of learning. Pre- and post-tests may include not only a variety of paper-and-pencil tests, but also tests of hearing, seeing, and smelling, or physical performance tests of strength or precision.

Learning Activities

Learning activities are means to an end, not ends in themselves. They are the terrain over which the learner travels in pursuit of the

objectives of the unit. New approaches to learning are necessary for many students attending college today. Research indicates that traditional lecture and discussion approaches are relatively ineffective with non-traditional learners (i.e., socially, economically, and/or educationally disadvantaged learners.) More than one type of learning activity is recommended for each learning unit, because research indicates that there are different styles of learning.

Practice is an important part of the learning/teaching process. Many opportunities to practice learning activities must be provided. It should be pointed out that practice activities should be similar to those activities which must be performed on the post-test. Learning is defined as a change in behavior—the learner will act in certain ways that were impossible or unlikely before instruction took place.

Teaching has been traditionally defined in terms of activities by the teacher. An emerging definition, however, is that teaching as the management of activities which produce measurable learning. No longer is teacher presentation of course content considered synonymous with learning. Under a systems approach to individualized instruction, the teacher's role shifts to that of the manager of the learning environment.

If measurable learning has not occurred, we may infer from the definition above that teaching has not taken place. Since two-year colleges are primarily teaching/learning institutions, they must become accountable for learning.

Teacher accountability is a natural result of this system. Since the focus is on the ends of instruction (what the learner will be able to do after instruction) rather than on the means of instruction (what the teacher will be doing during instruction) the teacher is automatically in a position to assume much of the responsibility for assuring that learning occurs. A note of caution is interjected here, in that accountability for student learning must be shared by instructors, by students, by administrators, and by trustees and others whose support is essential. The corollary of accountability is that the teacher must have access to the resources which are necessary to provide sufficient control over the learning environment. Note also that the specification of learning activities and learning objectives also provides a rational basis for student accountability.

Post-Tests

Since learning is the goal of our educational institutions, then the assessment of learning is an extremely important process. Thorough and

systematic evaluation determines how successful instruction has been. Measurable evidence of learning is the best documentation of the effectiveness of teaching. Testing is thus used primarily to assess the effectiveness of instruction, and not merely to categorize students.

There are many different approaches to evaluation. Some differ considerably from the traditional testing procedures historically used in education. It is therefore imperative that those involved in the assessment of learning be aware of the implications of these new procedures.

Consider the differences between the norm-referenced approach to evaluation and the new criterion-referenced approach.

The norm-referenced approach assumes that there is a normal distribution of student aptitude, skills, knowledge, and competencies. Evaluation using the normal curve as a guide assigns grades by comparing students with each other. Test scores are ranked, and then grades A through F are assigned to these categories. By definition, a normal curve used for grading predestines a percentage of students to failure, no matter how effective instruction has been.

In criterion-referenced testing, a standard of acceptable learner performance is established when the objectives are stated. Learner performance is then compared with this standard. Those who equal or exceed the standard have achieved mastery at a prescribed level and move on to the next unit. Those who do not achieve the minimum level of performance are allowed to continue their study of the same materials, or of other materials and to take an alternate version of the post-test without penalty.

A systems approach to individualized instruction requires a criterion-referenced approach to evaluation. If learners perform poorly on a post-test, it means they have not yet learned, and thus have not yet been taught. Thus, unacceptable grades by a substantial percentage of students symbolize instructional failure, rather than exclusively learner failure.

A vital element of a systems approach to individualized instruction is the post-test, which measures attainment of learner performance objectives. If sufficient learning has not occurred, then instruction must be revised, and the learner recycled through these or other learning activities until he demonstrates mastery of the performance objectives.

The concepts of John B. Carroll and Benjamin S. Bloom, provide a theoretical basis for a systems approach to individualized instruction. Carroll contends that aptitude may be defined as the amount of time

required to learning something,[1] and Bloom contends that mastery of a subject can be achieved by a high percentage of the learners in any class, if they are given sufficient time and appropriate types of help.[2] Thus, the normal curve as a guide in assigning grades, and the view that aptitude is the capacity for learning, are no longer valid. Most learners are capable of mastery, and an effective instructional system must accommodate this concept.

Revision

If learning aptitude is considered to be the amount of time required to attain mastery of a learning task, then a level of mastery is theoretically attainable by almost everyone. This concept has fundamental implications for education. Instructional processes that fail to cause learning must be revised until they become effective learning tools. The best data for revising instructional materials are obtained from students. Analysis of test items missed and interviews with students as to their confusions and recommendations for improvement are two sources of revision data.

The learner's attitudes toward the learning activities also are important. What has been achieved if the student, while mastering the content of a course, never wants to use what he has learned? Consequently, much more attention needs to be given to student attitudes. Our instructional workshops stress the need for affective or attitudinal objectives, as well as cognitive and psychomotor objectives.

Summary

The goal of effective individualized instruction in our colleges can become a reality through the use of a systems approach to individualized instruction, which consists of:

1. a rationale for each objective which explains why it is important to the student that he achieve the objective;
2. stated learner performance objectives, which tell the learner what he must do to demonstrate mastery of the required knowledge and skills;
3. pre-testing, which determines whether the student has the necessary knowledge and skill to succeed in the course, whether he has already mastered some or all of the objectives, and where he should begin the instructional

sequence, grouped in appropriate learning unit sizes;

4. learning activities and media which are designed to provide sufficient opportunities for practice that mastery learning will occur;
5. post-testing, which determines whether the student has achieved mastery learning or whether he must practice additional learning activities, and whether and where the instructional system must be revised to assure mastery learning for the next class of students; and
6. revision of the instructional systems objectives, rationale, or learning activities and media, which may be necessary to assure mastery learning by future students.

An effective unit developed in accord with a systems approach to individualized instruction breaks down course objectives and activities into short units through which a learner can proceed at his own pace, and monitors achievement after completing each unit. At the end of a course, revisions should be made in individual units and in sequences of units until mastery level achievement is attained by most learners.

A course composed of a series of individualized instructional units frees the instructor from his traditional role of lecturer or repetitive transmitter of information. It provides him with time and an opportunity to act as a manager of the learning environment, a diagnostician, a catalyst, a tutor, and as a leader who works with learners individually.

References

1. John B. Carroll, "A Model of School Learning," Teachers College Record, Vol. 63, December 1964, pp. 723-733.
2. Benjamin S. Bloom, "Learning for Mastery," Instruction and Curriculum, Topical Reprint No. 1. Durham, N.C.: Regional Education Laboratory for the Carolinas and Virginia, June 1970.

THE ACADEMIC SKILLS CENTER

Waltz Maynor

Beginning in 1959, all public senior institutions in North Carolina required that applicants for admission to the freshman classes submit scores on the Scholastic Aptitude Test (SAT) for the College Entrance Examination Board. There has been considerable institutional autonomy in deciding what use, if any, should be made of the individual scores. Certain guidelines as to minimum scores for admissions have been recommended by the Board of Higher Education, and in 1966, North Carolina Central University began using a minimum score for admissions to the freshman class.

As the minimum score required for admissions on the SAT increases, an excessive percentage of black high school graduates fail to be admitted into college classes.

In 1967, the North Carolina Board of Higher Education appropriated "catch-up" funds for certain public senior institutions in North Carolina. North Carolina Central University used its proportion of the "catch-up" funds to establish the Academic Skills Center. The Center's major purpose is to assist in the strengthening of the competencies of college marginal freshman (as measured by the SAT score) in the so-called "tool" areas: English, speech, and mathematics.

The criteria used for student admission to the Academic Skills are:

1. Entering freshmen who are admitted to the institution and assigned to the Center by the Admissions Officer. Their SAT scores are in the 600-649 range and their records indicated the need for special assistance. Were it not for the Center, these students would have been denied admission to North Carolina Central University.
2. Sophomores who have been suspended from the University for scholastic reasons but had been readmitted on probation, contingent upon their enrollment in the Center.
3. Freshmen and sophomores who are not on probation but who felt the need for special assistance and voluntarily sought the help of the Center.

The Instructional Program

The Instructional Program for the Academic Skills Center consists of courses in English, speech and mathematics offered for credit in the Academic Skills Center and supportive services given to the University's instructional program in Western Civilization and the Black Experience.

The English Component

The Academic Skills Center English Component has the following unique features:

1. Each student is required to keep an English notebook.
2. Each student has a designated 30 minute conference session with his instructor once a week.
3. All grammar is taught in conference sessions. It was found that from teaching grammar in class, without a doubt, students simply do not transfer knowledge of grammar to composition. By teaching grammar in conferences, students apply grammatical and technical rules of English to their own papers. Students' papers are used as the basis for the transfer of knowledge from the analytical theory to the practical application.
4. Whatever area of difficulty a student may be experiencing is taught during conference when this weakness is first noticed.
5. Students are judged by the lack of grammatical and technical errors that appear in their compositions. Exercises and reviews are used as strengthening agents.
6. Classes are small and informal, for it is from such an atmosphere that students have been found to be most receptive to grammar and composition.

The Speech Component

The General Objective of the speech component is to provide a functional approach to effective oral communication with a basic understanding of the structural analysis of composition and delivery. The total component centers around four major areas: (1) Fundamental concepts of aural-oral communication; (2) Principles of speech composition; (3) Principles of delivery and (4) Analysis of public address. In order to stimulate an awareness of the need for oral communication, a

continuous effort is made to motivate a creative and conducive atmosphere for speaking situations.

The Specific Objectives are:

1. To provide an understanding of the listening process relative to oral communication.
2. To assist students in recognizing and correcting errors of articulation through speech improvement.
3. To understand the basic techniques of speech development and organization.
4. To emphasize the need for critical analysis and logical thinking through mass media.
5. To provide an avenue for correlating the communication process—English and speech, for more effective writing and speaking.
6. To encourage group participation through effective group interaction.
7. To increase comprehension through reading media.
8. To stimulate effective public speaking by way of persuasion and debate.

The Mathematics Component

The Mathematics Component offers two courses for credit. These are Mathematics 100 (Intermediate Algebra), and Mathematics 110 (College Algebra and Trigonometry). Supportive services are offered in Mathematics 102 and 103, Structure of the Real Number System.

The Mathematics Component is divided into three major sections: (1) the classroom, (2) problem solving sessions, and (3) conferences.

Students who take mathematics as an elective meet with the instructor for at least five hours each week. The five weekly contact hours are divided between class sessions, problem solving sessions, and teacher conferences with students.

The Social Studies Component

Students who are assigned to the Academic Skills Center and enrolled in a social studies course may elect to take either Western Civilization or Black Experience. The Center's staff supports the social studies department's instructional program in both areas.

The program developer attends classes with the students and

works with them outside class to strengthen their academic competencies in social studies. All social studies classes are taught by regular departmental instructors.

The 1972-73 Program

The 1972-73 instructional program will offer speech and English to all students assigned to the Academic Skills Center. One group of students assigned to the Academic Skills Center will be enrolled in English and speech for two semesters. The second course in speech will be one on public speaking and an attempt will be made to develop intramural debating teams.

In English a program which will shorten the reward period for students will be offered to two English sections. The program will assign points for performing specific tasks such as: attending class, attending conferences, performance on tests, performance in theme writing, etc. It is believed that students will perform better if rewards are given frequently.

The mathematics program will be totally supportive with students given the opportunity to elect one of six classes to attend. In each of the six designated classes, a program developer will be assigned to the class with the responsibility to aid the Academic Skills Center students enrolled in that class with achieving academic competencies. One full-time program developer will be replaced by three part-time graduate students in mathematics. Each graduate student will be assigned one class where Academic Skills Center students are enrolled.

In social studies, Western Civilization will be taught for credit by the program developer in the Academic Skills Center. Center's students enrolling in Black Experience will be given supportive services.

THE DEVELOPMENTAL PERSPECTIVE IN HIGHER EDUCATION

Joseph Katz

The most succinct way of stating the developmental perspective is to say that nothing can be adequately learned unless the life space of the student is taken into account. This has two major implications: (1) we must set goals in educational plannings that are other than purely cognitive ones. (2) To achieve cognitive goals we must de.ermine what psychological and social arrangements help or hinder their realization. It could be said that the first goal is not relevant to the task of the school. But studies have shown whether schools consciously accept this function or not, that the classroom and out-of-classroom environment of the school have an impact upon the personality of the students and hence we might just as well perform this task more deliberately and successfull ', particularly as it affects greatly what the student will learn in school and how he will perform in his profession.

When education is viewed in this light, three paths for the college student become apparent: the achievement of self-esteem, of autonomy, and of competence. A student who has a low view of himself will not attempt certain tasks even though they might be quite within the range of his capacity. A student will not learn adequately unless his investigation and curiosity relates to strivings that make sense to him and stem from his own motivation. A student's mental life will be diffuse and much that he has been told will soon be forgotten unless instruction aims at having him achieve a set of skills that add up to one or several broad competencies.

How can the teacher help to implement these goals? He can help the student to achieve self-esteem by finer attention to what the student's present levels of skill are and not discourage him by tasks that at that particular moment are too difficult and hence discourage his sense of what he can do. For instance studies of college freshmen suggest that many of them are at a stage of development when their thinking still tends to be overgeneralized and strongly emotional. Their thinking also often tends to have an absolutist cast. Their written and oral expression often has a certain rawness, awkwardness and immaturity. Teachers often rush in with demands of objectivity and detachment which the freshman experiences as a disparagement of his

thinking powers. The teacher needs to encourage such thinking as the freshman now is capable of and gradually move from step to step. To help students achieve self-esteem it also is very important that the student feels that somebody cares for his thinking that has meaning for him. The professor's attention to individuals, therefore, is vital. In situations in which professorial manpower is short, older students or even same-age peers might be used to make learning more personal.

To help the student achieve autonomy the professor first of all needs to know more than he now does about the student's motivations and interests. For that reason, at the beginning of a course and while the course is in progress teachers should have feedback from students and might enlist them in the planning. At the end of a course it might be very desirable to have one's past students help plan the course for the next incoming group. Beyond that one should attempt to put students as much on their own as possible by doing individual projects or even by studying segments of a course by themselves without class attendance (but of course being evaluated by the teacher). Students' sense of autonomy is particularly strengthened if they can apply their knowledge or gather further knowledge in a practical situation in which their services are of use to other people and in which much of the responsibility is their own, as in teaching children and others, rendering a legal aid or other social service, etc. A more ideal way of helping students achieve autonomy is the contract principle. In making a contract with a faculty member a student specifies what it is that he wants to learn and the ways in which he is going to go about it. Such a contract might be revised as the student progresses in his work. The evaluation is again up to the teacher. But under the contract system what the student learns is much more likely to be close to his own inner incentives.

To help students achieve a sense of competence the professor needs to be oriented less towards individual courses and more towards the contribution any piece of learning makes towards the students achieving a rounded sense of accomplishment. Often even a graduating senior may feel that he knows some scattered things here and there but that he does not know anything very well. Thus to know the smatterings of a language does not give a student very much satisfaction. We might, in this instance, aim at nothing less than a comprehensive knowledge of the language, culture, and history of a people. But if we aim at that something else will have to be given up. The suggestion here is that fewer things learned well are better than

more things learned not very well, better for the student's sense of achievement and better for stimulating his continuing willingness to learn. We will get the student's cooperation particularly if the competencies that he develops relate to his own future occupational career and to his personal development. The emotional tasks of the college years, the achievement of a sense of identity, of capacity for relations with others, of the ability of caring for others, will all need much more deliberate attention if we wish to obtain the cooperation of our students in the educational process.

To implement developmental principles we also need to be aware that students are not all of a kind, that they are different at different stages of their college careers and that there are differences of personality and upbringing. All this requires a more differentiated response to students.

Two things should be said in concluding. We have on the whole treated the student in higher education in too atomic a fashion. We have not utilized the principle that learning often is best when several minds cooperate. For that reason we might set up many more projects in which students pursue a joint task each one making a particular and indispensable contribution without which the whole could not emerge. This could be library research projects, artistic productions, social observation or service. A good analogy to what we have in mind is provided in many sports in which the team principle is essential for success. Second, professors should think less exclusively of the classroom as the major site of learning. They should plan their instruction in such a way as to work in experiences outside of the classroom as bases for learning—occasions to either test information and theory or to develop fresh information and theory. The college campus and the surrounding community provide an ample field. We should duplicate as much as possible the opportunities for having experiences similar to those that led to the descriptions in the books that they are reading.

College professors to be effective will need to know more than many of them now do of students. To this purpose they will need to read more of the literature about students and engage in observations of their own. To achieve this purpose they will be greatly aided if they band together with colleagues in joint studies and discussions.

PART III

CURRICULUM DOCUMENT PREPARATION

SUMMARY OF THE DOCUMENTS PREPARED AT THE DALLAS WORKSHOP BY INDIVIDUAL COLLEGE TEAMS REPRESENTING TWENTY-THREE OF THE TWENTY-FIVE CAP CONSORTIAL COLLEGES

Introduction

Part of the CAP Dallas workshop was spent by the respective college teams to prepare curriculum documents for their colleges. Groups of four and five college teams were formed and consultants were provided to assist the groups in preparing these documents. In six seminar sessions, each of the college teams presented and shared its document with other teams in their particular group.

Three points should be mentioned regarding the preparation of these curriculum documents: 1) that the preparation of the documents brought together basic ideas and thoughts generated at several departmental and faculty meetings of these colleges prior to the teams attending the conference, 2) that it was an exercise in the exploration/examination of the needs for curriculum re-design in black colleges, and 3) that it was our hope that the ideas in the document might serve as starting points for curricular change and improvement of selected black colleges.

The CAP staff hopes that the contents of these documents will provide each college team with discussion items for their faculty, administration and students. It is also hoped that each team will continue to revise, refine and edit its document with the expectation that the basic ideas expressed in the document will result in some concrete implementation in the near future. For colleges outside the CAP consortial group, the summaries of these documents might enable them to identify curricular problems which confront them and offer an approach to the solution of such problems.

Since the general objective in preparing the curriculum documents was to provide the participants the opportunity to share common problems/thoughts about curriculum revision and improvement at their respective colleges, the documents so prepared in no way reflect the colleges' policies, plans or recommendations. Generally, the teams

viewed the preparation of the documents as an opportunity to give special attention to immediate and long range plans of their colleges. There was a clear recognition that the CAP office serves only in an advisory role and it is the responsibility of each institution to work out its own line of action by identifying its own problems, setting its own priorities and attempting to solve its own problems in the light of its own philosophy, traditions and resources. The documents, therefore, reflect diverse attempts at curriculum improvement at each of the consortial colleges. As a result, in summarizing the documents, names of the colleges have been omitted deliberately and alphabets used as labels.

What follows is an attempt to summarize in one paragraph the essence of each of the twenty-two (22) documents prepared at the CAP Dallas Workshop.

PARAGRAPHIC SUMMARY OF THE CURRICULUM DOCUMENTS PREPARED BY INDIVIDUAL COLLEGE TEAMS AT CAP DALLAS WORKSHOP

College A

Title of Document: A Preliminary Model for Curricular Innovation at College A

Summary of Document: Representatives of College A proposed in their curriculum document a model for an approach to curricular change. They recommended a Curriculum Council consisting of a maximum of nine (9) to eleven (11) members with one representative from a) administration, b) students (one each from junior and senior classes elected by their respective classes), c) Natural and Physical Science departments, d) Practical Arts department, e) special programs area, f) Teacher Education Council, g) humanities and, h) planning committee. One of the major functions of the Curriculum Council will be to conduct a comprehensive study of the institution's curriculum with a view to establishing an ongoing study and analysis of existing and future courses, enrollments over the past five years, and making appropriate recommendations based upon these findings in light of the current and/or curricular thrust of the institution. The procedure for implementing the model evolves curricular changes and/or innovations emanating from the academic affairs components, channeled through

the Academic Dean who in turn would transmit such proposed changes to the Curriculum Council. The Curriculum Council after reviewing and examin. g the proposed change, will take appropriate actions and convey such action to the Chief Academic Officer.

College B

Title of Document: Curriculum Change in Black Colleges for College B

Summary of Document: This document addressed itself to the Schools of Technology and of Home Economics at the university. However, it has implications for other undergraduate schools of the university. Eight basic concerns were elaborated: a) adjustment of more flexible course requirements and semester hours of credit in the university's existing general education program, b) how best to apply the idea of competency-based education to individual student's needs, c) the problem of conducting courses in mathematics and science by the faculty of the School of Technology, d) the problem of cooperative education credits for students, e) the problem of "program developers" or tutors, f) the problem of student-oriented program planning, g) the problem of visits to business and industry, h) ECPD accreditation of the School of Technology. Recommendations were made with regards to these concerns: a) reduction of credit hours and deletion of some courses in the existing general education program, b) provision be made so that students meet their general education requirements in different ways, c) that competency-based education would profit all undergraduate schools of the university, d) the utilization of "program developers" or tutors in improving the performance of "slow learners" or students with insufficient background for college work, e) primary responsibility be given to students in planning their educational program, f) cooperative education work experiences be encouraged across the university, g) student field trips to business and industries in local and distant communities bbe continued, h) a thorough evaluation and adjustment of the general education subjects in technical curriculums in such a way as to meet the ECPD accreditation requirements.

College C

Title of Document: Report of College C Team on Curriculum Changes for Black Colleges

Summary of Document: The first half of the document was devoted to review of the institution's current goals and purposes. Recommendations were made in relation to possible new objectives of a black institution in a changing competitive world. The team summarized their recommendations to two basic objectives: 1) development of effective communication skills and 2) development of students' ability to think logically and creatively. The other half of the document included curriculum proposals, suggestions, and/or recommendations. These were: 1) consolidation of existing course offerings to include the same information and content, 2) adjustment of curriculum for transfer students, 3) centralized academic advisement and counseling in general education, 4) a closer scrutiny of course structure for the purpose of predicting future needs, 5) more flexibility at departmental level in both the general education sequence and in the major programs, 6) identification and concentration on certain areas in which the university can excel, 7) advance placement to be used as a device for recruiting top level students, 8) creation within the institution's faculty a total commitment to both academic advisement and accountability.

College D

Title of Document: Project Report CAP/ISE Workshop on Curriculum Change in Black Colleges

Summary of Document: Since College D has already undertaken a year's study of its general studies program through a grant by the National Endowment for the Humanities, the document was in the form of a report of that study. Two of the four phases of the study have already been completed. Phase one involved a careful and detailed analysis, including surveys and profile studies of the teaching faculty and the study body as they related to the current general studies program of the college. Phase two involved basic visible construction of the projected general studies program including the statement of a working philosophy, objectives of the program, designing a curriculum, and structuring an organizational center. Presently, the college is at

phase three. This phase involves implementing the variables identified in phase two in an effort to operationalize the basic objectives of the general studies program. Phase four will involve further implementation and evaluation of the program. At the end of the report a few recommendations are made in relation to the general studies program indicated above: a) preserve the present classification or grouping of courses, b) review the relevancy of courses within each cluster of courses to the over-all general studies program, c) review courses to detect overlapping and/or repetition of content, d) relate course structure, content, teaching approaches, etc. of each general studies course to the statement of philosophy and statement of objectives and e) continuous involvement of all teaching areas. The establishment of administrative, supervisory and supportive organizational groups was recommended.

College E

Title of Document: Proposed Revisions of General Education Requirements at College E.

Summary of Document: Three practical goals were stressed in this document in an effort to plan the revision of the general education program of the college. The first goal was the identification and determination of trends in curricular change together with the rationale for change at College E. The second goal emphasized the roles and functions of the college team that attended the CAP workshop as change agents to promote a more favorable educational environment. The third goal was the institution of an organizational structure in the college which will lend itself to the promotion of curricular change. Departure of the purpose and philosophy of the college from a strict religious base to a liberal arts institution was noted and commended. It was recommended that the total number of semester hours required in foundation courses or general education requirements of the college be reduced so that: 1) students will be allowed greater flexibility in planning schedules around the increased number of free electives, 2) students will be provided more opportunity in planning programs of study according to their personal interests and needs, 3) a more viable curriculum in terms of contemporary students needs will be provided. Other important revisions recommended were the differentiation of mathematics and science courses according to specialization and general

education requirements, changing Freshman Seminar to a short non-credit course, and institution of free electives for general education requirements of College E.

College F

Title of Document: Freshman Studies Program (A Proposal)

Summary of Document: The first half of the document was devoted to the modification of the existing statements of philosophy and objectives of College F in light of the points raised at the CAP workshop. Considering the calibre of students admitted to the college, and the serious/challenging problems of high attrition rate in the freshman year, it was recommended that a special freshman studies program be created. This program would include: a) improvement of the orientation program involving upperclassmen and personnel staff, b) as part of the communication skills program, allow all freshmen to take the same first language course regardless of entrance test scores, c) allow all freshmen to take the same mathematics, d) in social science survey courses, utilize both team teaching and community resources, e) physical and biological sciences. In order to bring about the effective implementation of the proposed freshman studies program, a few recommendations were made: 1) that the college community be urged to accept the modified statement of philosophy and purpose as it appears in this document, 2) that there be organized series of workshops for the purpose of orienting the faculty to the new philosophy and methods involved in implementing the proposed program, 3) that the college study recommend the use of the Thirteen College Curriculum Program (TCCP), 4) that specific departmental objectives be stated in line with the philosophy and purpose of the college, 5) that behavioral objectives be stated for all courses, 6) that there be organized a college-wide tutoring service to help implement this program in which faculty and students will participate, 7) that a freshman whose performance on entrance tests indicates that he can meet adequately all of the objectives of the first experience may be exempted, with credit, and advanced to the next level.

College G

Title of Document: Curriculum Document: The Black Experience Component

Summary of Document: As a backdrop to the proposed Afro-American core program for curriculum enrichment of students at the university, the team acknowledged the validity of the existing Afro-American experience program. The rationale for the existing Afro-American course offerings was given. Considering the limitation of the existing program, however, the team proposed that an interdepartmental-interdisciplinary program of Afro-American courses be instituted as a core of experience for the students who matriculate at the university. The team pointed out that the existing flexibility of the university's ability to accommodate a core of courses dealing with the black experience and which is interdisciplinary, would protect the essential values of the institution. Three inter-related program planning levels were suggested: intellectual, therapeutic and activist. The program was visualized as a two-pronged thrust with high-level academic focus and community action programs of varied idealogical tones.

The proposed interdisciplinary Afro-American experience program was emphasized by the team as necessary. It was suggested in the organizational procedure that the courses be scheduled twice weekly as separate colloquia, with a seminar scheduled once weekly with all students and teachers, in which techniques and skills are exhibited in some project of interest, selected by the students, with the aid of their teachers. The document stressed that a black experience component within the general framework of the curriculum at the university has the obligation to convey knowledge and skills that are relevant to black students. The need for a cooperative effort by the teachers involved in the program was strongly advised.

College H

Title of Document: Curriculum Development at College H

Summary of Document: In considering curriculum innovations for College H, the team carefully recommended only those revisions that were consistent with the college's purposes and that would effectuate the objectives of the college. The existing general education program,

which requires fifty-nine (59) semester hours or forty-eight per cent (48%) of each student's total educational requirement, was criticized as being too rigid to allow for the student the decision-making and responsible attributes so necessary in college work and in society. The general education program of another college team was used to illustrate what a school of similar size and constituency had done to increase flexibility in its general education program. The objectives of the proposed general education program were elaborated and the summary is stated as:

1. To select materials relevant to the living and learning experiences of black Americans.
2. To develop adequate communication skills (reading, writing, speaking, and listening).
3. To encourage positive values and attitudes.
4. To develop learning techniques (emphasis on "how to learn," rather than on content or memorization of facts).
5. To institute throughout the general education program the use of purposeful evaluative or achievement criteria understood by both the teacher and student.
6. To evaluate course offerings in terms of the integration, coordination, and deletion of courses by re-thinking course goals in terms of relevancy to the major areas and to the toal academic program of the college.

College I

Title of Document: Recommendations for Curriculum Improvement for College I

Summary of Document: The document gave a short report of what activities and changes had been taking place the last few years at College I. Especially noted was the college-wide evaluation of its educational program through a revision of the college's "Statement of Purpose" and an analysis of the responses of an ETS questionnaire which focused on assessing the correlation between the objectives of the college and its educational program. The team urged very strongly the continuation of the evaluative techniques employed in the 1969-70 studies. Special emphasis was placed on the development of a core curriculum in order to determine if the majority of the students actually believed that they were being forced into a major field before

they had had sufficient time and opportunity to become familiar with the major offerings and with employment opportunities in their major areas. It was also advised that emphasis be placed on setting standards at levels of "difficulty" which may be mastered while providing challenging experiences for the students. This in many instances should entail the use of behavioral objectives and individualized instructional procedures.

College J

Title of Document: Curriculum Development at College J

Summary of Document: Major problems confronting black colleges in general and College J in particular were pointed out as background to the recommendations made in this document. Major concerns of the team from College J were: 1) insufficient faculty interest in the needs of the undergraduates, especially in the teaching of lower level courses, 2) the need for greater understanding of the relationships between the curriculum and other aspects of undergraduate education, 3) a lack of sufficient knowledge and understanding of the background and aspirations of students who attend predominately black colleges, 4) the necessity for the university community to realize that curriculum development is a continuous process and should be subject to on-going review and evaluation. Three approaches to curriculum development were recommended for College J. They were: 1) the development of the university-wide lower college whose basis and philosophy are already expressed in the "role and scope", report of College J, 2) the establishment of an Office of Curriculum Development and Academic Research as an integral part of the university which will concern itself with on-going evaluation, re-defining objectives of the college, altering procedures, and refining curricula, 3) the initiation of a program for greater faculty involvement in curriculum development. The team made suggestions as to their role in helping College J produce the type of climate necessary to accelerate change. A major role of the team will be to act as catalysts in initiating those aspects of curriculum development and academic planning within its purview.

College K

Title of Document: General Education for the 70's at College K

Summary of Document: This document suggested ways in which College K could be made more responsive to students. The document gave three reasons why curricular modification was urgently needed at College K: 1) as a state college, the state is presently holding the college accountable for the high attrition rate, 2) the existence of the college is threatened by duplication of instructional programs, 3) the constant threat of a possible merger with a predominately white college. In the formulation of a General Education Program for the 70's at College K, the central objective was elaborated in seven specific areas: university-wide orientation, the President and his administrative staff, academic school deans, university-wide faculty-student committee, administrative processing of proposals, departmental planning and implementation, curriculum articulation and evaluation. A taxonomy of subject-matter courses for the General Education for the 70's Program for College K was designed in the form of specific subject-matter disciplines. The emphasis of the document was that College K must be a part of the deliberate efforts of other black institutions to promote innovative strategies for both change and survival.

College L

Title of Document: A Freshman Studies Program with Consideration for the Typical and for the Atypical Student

Summary of Document: Based on the philosphy of College L, this team proposed a freshman program to accommodate "typical" and "atypical" students. The proposal focused on those curricular changes or modifications that would enable: 1) the "ordinary students", who possess extraordinary abilities/qualities to discover and develop them, 2) the "not-so-ordinary student" to develop the fullest extent of his capacity in a carefully structured Freshman Studies Program. It was advised that the suggested program be implemented with minor changes in the general college schedule, but with modifications in the sequence of the offerings, and in techniques and procedures within courses. The team expressed the realization that the goals which dictated the proposed program/curriculum changes could only be attained through

the involvement of those teachers who possess the characteristics and attitudes geared to change.

College M

Title of Document: The Honors Program at College M

Summary of Document: Realizing the importance of and need for an honors program at College M, the team designed an honors program. This program was intended to be a college-wide honors program and not departmental. A major goal of this program would be to stimulate in able students qualities of broad, intellectual leadership which would enrich the atmosphere of the college and the experiences of all students. About twenty-six (26) students would be selected from all the academic departments as well as each class. The selection of these students would be determined by basic criteria set out in the document. The chairman of the Committee on Academic Honors and Awards would serve as the coordinator of the program. Students in the honors program could select any courses offered at the college in place of their regular elective courses. Students in the program would also be involved in independent study with possible advice and guidance from the coordinator of the program or other members of the faculty. There would be periodic evaluation of the honor student's work and progress. The team advised that the college carefully consider resources for this program. For the program to be successful, the team recommended that: 1) the students be selected carefully considering the criteria stipulated in the document, 2) the program be highly motivating and rewarding, 3) the coordinator be energetic, imaginative as well as scholarly.

College N

Title of Document: A Proposal for Revision of General Education at College N with Special Reference to the Humanities and Social Science

Summary of Document: The team proposed changes on both a short term and long term basis. The strategy suggested to implement change would involve students, faculty and administration. In light of the proposals set forth in this document, the following recommendations were made: 1) general education and specialized education should be

distributed throughout the student's collegiate education, 2) content of general education courses should be made more functional and relevant to present-day living, 3) reduction in number of courses and semester hours, 4) the black experience incorporated in the subject matter where courses lend themselves to such innovations, 5) both curriculum and admission policies should be geared to serve students of low economic backgrounds, 6) study and re-evaluations of grading apparatus used in measuring and awarding grades, 7) consideration of instituting a program leading to a degree in General Education, 8) students be permitted to design their own programs, 9) group of seven persons selected from specific academic areas be formed to follow up ideas set forth in this document.

College O

Title of Document: Operation Academic Interdependence: Accent on Curricula Revisions and Academic Environment

Summary of Document: This document entailed a proposal suggesting stratagems by which College O might increase its effectiveness in developing within its students an increased interest in continuous learning. The proposal focused on selected revisions in the curricula and effective utilization of the academic environment of the college. The existing core course offerings were enumerated and the weakness of the core curriculum was pointed out. An observation was that the core program did not appear to adequately attend to the needs, aspirations, background experiences and special competencies of the emerging student clientele at the college. Some of the changes proposed were: 1) allow students in various disciplines greater flexibility in selecting courses, 2) institution of a sequential course in "world cultural awareness," embracing world literature, world civilization, music and art appreciation, 3) reduction of science course requirement from 12-16 hours to 6-9 hours for all non-science majors. The team recommended the formulation of task forces to study and review changes in curricular offerings and to look for ways in improving the quality of the total learning environment at the college.

College P

Title of Document: A Proposal for a Re-examination of College P's Core Curriculum: Problems and Implementation

Summary of Document: After detailing major weaknesses and strengths of the current core curriculum at College P, the team focused their attention on the failure of the college to implement its core curriculum with much success. The document pointed out some areas of the curriculum that need revision. Guidelines were drawn to help the college re-examine its core curriculum. The need for data on attrition rates, performance levels, projections of future career opportunities, admission standards and trends in patterns of enrollment were indicated. The team noted that the importance of techniques and procedures for evaluation be clearly determined and that mechanism for a continuous evaluation process be provided. It was pointed out that to be a success, the core curriculum must be taught by a faculty committed to its goals.

College Q

Title of Document: Special Services Program (A Proposal)

Summary of Document: Among other useful programs instituted at College Q was the College Education Achievement Program (CEAP), which was phased out at the end of the 1971-1972 academic year. In the evaluation of the CEAP Program, the team expressed marked progress in academic achievement of the students involved in it. Because of the experience gained in working with CEAP, the team recommended the institution of a support program similar to the CEAP. The basic differences between the support services program and the CEAP would be: 1) that the support services program will be an integral part of the regular program of courses, 2) that full credit in each course be earned when required academic performance had been met 3) that the faculty for the program be part of the regular teaching force. The team envisioned the support services program providing English/communications laboratory, mathematics laboratory, and counseling services to the same calibre of students who participated in the CEAP program. In addition, activities in the academic areas will be designed to encourage and enable these students to work independently.

College R

Title of Document: A Proposal for Increased Flexibility in the J unior Division at College R

Summary of Document: The junior division or lower college of College R is the academic unit which plans and supervises the educational experiences of freshmen and other students who have not met the requirements for admission to a degree-granting college of the university. This team identified the problem of the absence of flexibility in this institution's freshman curriculum and the team assumed leadership in the search for a solution to this problem. The team, therefore, made the following proposal: 1) provide a number of equivalent courses at the freshman level that will broaden the scope of selection, 2) change the existing English requirement to a basic communications requirement, 3) change the rigid mathematics requirement to an introductory science course or special computer appreciation course or even a course in philosophy, 4) investigate the possibility of adding a practicum to courses that lend themselves to student involvement in community life. The team recommended a university involvement through the formation of small faculty clusters which will allow for cross-discipline assessments of student progress and inter-disciplinary exchange of methodology. Students would also be allowed to help identify their needs and provide valuable judgment on the effectiveness of faculty and program in meeting those needs.

College S

Title of Document: General Education Program (A Proposal)

Summary of Document: The focus of this report was on changes to allow increased flexibility in meeting general education requirements and to allow for several alternatives by which a student may meet his needs. In order to aid the student in developing skills necessary to reach his optimum potential, the following facilities and programs were suggested: 1) Reading Study Skills laboratory for students with reading deficiencies, 2) Writing Laboratory for students deficient in basic writing skills, 3) a tutorial program be provided through the Counseling Service of the college for any student who might be in need of tutorial services in any discipline, 4) a summer session specially offered for

students who wish to take additional courses or to make up unsatisfactory grades, 5) the institution of an honors program in an effort to meet the educational needs and provide an enriched course of study to students who demonstrate exceptional academic ability.

College T

Title of Document: A Proposal for Compacted Instructional Time Segments for College T

Summary of Document: The main portion of the document was given to change of course offerings and course structure. The team proposed a new concept of freshman courses which would run for a period of two years with about half of the freshman students participating as an experimental group. Rationale for the Compacted Instructional Time Segments Program includes: 1) to determine the efficacy of learning by offering fewer courses concentrated over a shorter period of time, 2) to facilitate the teaching-learning process, 3) to test the sanctity of the four-year college program. The team recommended the following: 1) that a definite program of self-study be initiated and conducted in this proposed project in the coming school year (1972-73), 2) that the supportive programs become a vital part of this program, 3) that student-independent study with emphasis on program learning be encouraged and stressed, 4) that a special budget be provided for the implementation of this program, 5) that this program be introduced to the university faculty during the annual faculty fall conferences in 1972-73 academic year, 6) that an element of flexibility and individualization be encouraged within each class of the college, thus utilizing the programmed learning approach.

College U

Title of Document: Curriculum Change: Recommendations for Implementation

Summary of Document: The document contained six specific recommendations made to College U's Ad Hoc Committee:

1. That the members of College U faculty be exposed to the deliberations of the CAP Atlanta and Dallas conferences.
2. That some elements from the 4-1-4 plan presented by the

speakers at the CAP Dallas conference/workshop be utilized for College U's underclassmen.

3. That in the preparation of revised curriculum for upperclassmen, the Ad Hoc Committee adopt the Rumland-Pfieffer plans elaborated in the Bowen and Douglass book.
4. That the Ad Hoc Committee provide for the establishment of a plan to provide continuing evaluation of any plans adopted in the revised curriculum.
5. That a Coordination Plan be instituted such that the stipulated assignments for Basic English courses be concurrent with required assignments in other disciplines.
6. That an Intergirding Plan be instituted such that the team-teaching plan involving English teachers and teachers of other disciplines could focus on the behavioral objectives of these disciplines relative to skills needed for written assignments and examinations.

College V

Title of Document: A New Approach to General Education at College V

Summary of Document: This document described efforts being made by College V in evaluating the College's general education program. After considering the re-evaluation processes that had taken place at their college, the team insisted that their students must be "generally educated" in order to satisfy the mission of College V, consequently, an experimental freshman program was proposed. In addition, the team indicated four basic areas that needed much improvement: 1) communication skills, 2) logic and measurement, 3) the social environment, and 4) the physical environment. For the students to get the benefit of the above basic areas indicated, the team recommended that assistance be provided in the following forms: 1) counseling and testing, 2) group experiences, 3) individual attention, 4) a variety of exposures in community life. Precisely, the experimental freshman program proposed will require students to engage in various community affairs as well as the regular departmental curriculum which normally constitutes a college education. The document indicated that the 1972-73 school year for College V will have three different general educational programs for entering freshmen: 1) The Thirteen College

Curriculum Program which emphasizes the inquiry method using the interdisciplinary courses, 2) The Traditional Program, 3) The College V Freshman Studies Program which is student centered, life centered, utilizing the problem solving technique. In order to ascertain the affect, effect and value gained through these programs or educational experiences, the team structured evaluation instruments.